

MINUTES

North Dakota State Water Commission Bismarck, North Dakota

October 11, 2018

The North Dakota State Water Commission (State Water Commission or Commission) held a meeting at the Brynhild Haugland Room, State Capitol, Bismarck, North Dakota, on October 11, 2018. Lt. Governor Brent Sanford, acting Chairman, called the meeting to order at 1:07 p.m., and requested Garland Erbele, State Engineer, and Chief Engineer-Secretary to the State Water Commission, call the roll. Lt. Governor Sanford announced a quorum was present.

STATE WATER COMMISSION MEMBERS PRESENT:

Lt. Governor Brent Sanford, acting Chairman
Doug Goehring, Commissioner, ND Department of Agriculture
Katie Andersen, Jamestown
Michael Anderson, Hillsboro
Richard Johnson, Devils Lake
Leander McDonald, Bismarck
Mark Owan, Williston
Matthew Pedersen, Valley City
Jason Zimmerman, Minot

OTHERS PRESENT:

Garland Erbele, State Engineer, and Chief Engineer-Secretary,
State Water Commission
State Water Commission Staff
Jennifer Verleger, General Counsel, Attorney General's Office
Reice Haase, Policy Advisor, Governor's Office
Approximately 25 people interested in agenda items.

The attendance register is on file with the official minutes.

The meeting was recorded to assist in compilation of the minutes.

Governor Burgum was absent in order to attend funeral.

CONSIDERATION OF AGENDA:

The agenda for the October 11, 2018, State Water Commission meeting was presented; there were no modifications.

CONSIDERATION OF DRAFT MINUTES OF AUGUST 9, 2018, AND SEPTEMBER 20, 2018, SUBCOMMITTEE MEETING MINUTES:

The draft minutes of the August 9, 2018, State Water Commission meeting and September 20, 2018, subcommittee meetings were reviewed; there were no modifications.

It was moved by Commissioner Johnson, seconded by Commissioner Zimmerman, and unanimously carried, that the August 9, 2018, committee meeting minutes, and September 20, 2018, subcommittee meeting minutes be approved as presented.

STATE WATER COMMISSION FINANCIAL REPORTS:

The allocated program expenditures for the period ending August 31, 2018, were presented and discussed by David Laschkewitsch, Director of Administrative Services. The total expenditures are within the authorized budget amounts.

The Project Summary for the 2017-2019 Biennium, **APPENDIX A**, provides information on the committed and uncommitted funds from the Resources Trust Fund and the Water Development Trust Fund. The final summary for projects shows approved projects totaling \$574,524,248 with expenditures of \$191,705,483. A balance of \$106,909,767 remains available to commit to projects in the 2017-2019 biennium.

The oil extraction tax deposits into the Resources Trust Fund total \$192,788,064 through September 2018 and are currently \$38,399,892 or 24.9 percent above budgeted revenues.

Deposits received for the Water Development Trust Fund total \$23,874,965 through September 2018 and are currently \$14,874,965 above the budget revenues of \$9,000,000. The large increase is due to a settlement agreement between the state and the major tobacco companies over enforcement of the 1998 Tobacco Master Settlement agreement. The next scheduled deposit will be in April 2019 and is anticipated to be \$9,000,000.

REVISED COST-SHARE POLICY:

Craig Odenbach, Director of Water Development Division, presented the final cost-share policy revisions related to "WATER SUPPLY," **APPENDIX B**.

It was recommended that the cost-share policy be amended and approved, effective immediately, in the State Water Commission Cost-Share Policy.

It was moved by Commissioner Goehring and seconded by Commissioner Owan that the State Water Commission amend and

approve revisions related to “WATER SUPPLY” as indicated in Appendix B, effective immediately, in the State Water Commission Cost-Share Policy.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

STATE COST-SHARE PARTICIPATION REQUESTS – WATER SUPPLY, RURAL WATER

CASS RURAL WATER USERS DISTRICT, HORACE AREA ELEVATED TANK - \$1,755,000

(SWC Project No. 2050CAS):

Cass Rural Water Users District (Cass) requested cost-share to build a one million-gallon elevated tank to improve capacity in both residential and commercial development areas around Horace and West Fargo. Cass is currently reaching the capacity of their existing infrastructure. The tank was included in a study completed for Fargo and West Fargo and will be incorporated into West Fargo’s future expansion plans. The tank will be located at the site of the new middle school and high school planned for the West Fargo School District, located in Horace’s extraterritorial area. Cass and Horace have a water service area agreement that addresses the extraterritorial area. In addition, Cass has water service area agreements with Fargo and West Fargo.

Cass serves approximately 5,500 users with a population of over 13,000 within portions of Cass, Barnes, Richland, and Ransom. Cass currently operates three water treatment plants and purchases water from Fargo at several locations to serve the system. The Phase 1 water treatment plant is located south of Horace and is served from the West Fargo aquifer. The Phase 2 water treatment plant is located south of Leonard and draws water from the Sheyenne Delta aquifer. The Phase 3 water treatment plant is located south of Page and takes water from the Page aquifer. Cass has a water rate of \$27 per month minimum and \$5.40 per 1,000 gallons.

The estimated project cost is \$3,770,000 with construction cost of \$3,510,000 and pre-construction cost of \$260,000. On August 23, 2017, the State Water Commission approved 35 percent cost-share of \$91,000 on pre-construction costs. Cass will bid the project this winter and plans to complete construction in summer of 2020. Cass indicated funding construction at 50 percent cost-share will be sufficient and works with the local share of a loan through the Drinking Water State Revolving loan fund.

Secretary Erbele recommended the State Water Commission approve an additional \$1,755,000, resulting in a total cost-share of \$1,846,000, with pre-construction costs

funding at 35 percent, construction costs at 50 percent, and essentially commits the balance of the 2017-2019 rural water purpose fund to the Cass Horace tank. The funding is in the form of cost-share towards eligible costs and contingent on available funding. The Cost-Share Request Form and supporting material is attached as **APPENDIX C**.

It was moved by Commissioner Owan and seconded by Commissioner Goehring that the State Water Commission approve an additional cost-share of \$1,755,000, paid on eligible costs for 35 percent pre-construction costs and 50 percent construction costs. The action is contingent upon the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

NORTHEAST REGIONAL WATER DISTRICT/EAST CENTRAL REGIONAL WATER DISTRICT, NORTHEAST AREA MASTER PLAN - \$107,000
(SWC Project No. 2050NOE/2050EAS):

Northeast Regional Water District (Northeast) and East Central Regional Water District requested cost-share to fund a long-term regional water supply master plan for municipalities and water districts in the project area. The stakeholders include Agassiz Water Users District, East Central Regional Water District, Northeast, Tri-County Water District, Walsh Rural Water District with Park River, and Devils Lake, Grand Forks, Hillsboro, Larimore, and Mayville. Currently, there is no common master plan for potential regional collaboration or reference as municipalities and rural water districts add pipelines and improve their individual systems. There is a struggle to design and construct the appropriate infrastructure without a larger, long-term, master plan that systems can reference for long-term planning and incremental system improvements.

The study would address all future water supply and transmission pipeline needs over the next 50 years for the stakeholders. The study would use the information provided by Lake Agassiz Water Authority for the Red River Valley Water Supply Project (RRVWSP) beach ridge and regional approach options as a baseline for capital costs associated with the core pipeline and the branch pipelines for both the beach ridge and regional approach to RRVWSP. The study would also further those efforts by determining operations and maintenance costs as well as finished water costs for the stakeholders. The report would evaluate local solutions for the stakeholders during a 1930s style drought. The local solution would be compared to the beach ridge and regional RRVWSP alternatives, to ensure the most cost-effective, long-term, water supply solution for the region.

Northeast requested the study be completed prior to participating in the RRVWSP to provide stakeholders with the information necessary to make an informed decision. The estimated cost for the study is \$275,000. Cost-share of 75 percent on eligible costs would be \$206,250.

There are insufficient funds remaining (\$107,000) from the total allotted to the rural water purpose fund to fund the project at the full 75 percent. The original recommendation of Secretary Erbele was the State Water Commission defer the cost-share request. The Cost-Share Request Form and supporting material are attached as **APPENDIX D**.

Secretary Erbele indicated that he recently met with the Garrison Diversion Conservancy District (GDCD), and the GDCD expressed interest in funding a portion of the cost-share request. After further discussion with the Commission and Gordan Johnson, General Manger, Northeast, it was determined that Mr. Johnson would work with GDCD to provide possible funding, and the Commission would contribute \$107,000 of the cost-share request from the available rural water purpose fund.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission approve a total cost-share of \$107,000 for the Northeast Area Regional Water Master Plan. The action is contingent upon the availability of funds.

Commissioners Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. Commissioner Andersen voted nay. Lt. Governor Sanford announced the motion carried.

STATE COST-SHARE PARTICIPATION REQUESTS – WATER SUPPLY, MUNICIPAL AND REGIONAL

NORTHWEST AREA WATER SUPPLY (NAWS), FEDERAL MUNICIPAL, RURAL, AND INDUSTRIAL WATER SUPPLY (MR&I) FUNDING – \$1,900,000 AND STATE WATER SUPPLY FUNDING - \$4,600,000 (SWC Project Nos. 237-03/237-04):

Jeffrey Mattern, Engineer Manager, presented requests to reallocate FY2016 federal MR&I program funding and to allocate 2017-2019 State Water Supply Funding to the NAWS project, with emphasis towards design and construction of transmission pipelines north of Minot. The NAWS project costs for studies, design, and construction have been \$132.8 million over the last 30 years. The funding has been 42.9 percent federal, 22.3 percent state, 34.4 percent Minot, and 0.4 percent Rugby.

The reallocation of MR&I funding is from funds previously approved to Carrington for a new water tower. Carrington decided not to proceed with the water tower and released the funding of \$1,900,000. NAWS previously received approval for FY2018 federal MR&I of \$11,815,000 towards the Biota Water Treatment Plant design and the Minot Water Treatment Facility Phase II project construction.

The NAWS Biota Water Treatment Plant Phase I (Contract 7-1D) will be constructed near Max, has an estimated design cost of \$4.9 million, an estimated construction cost of \$45 million, and has been determined to be 100 percent federally funded. The design will be completed in the fall 2019 and construction completed in 2021.

An upgrade of the Minot Water Treatment Facility is being completed to provide 27 million gallons per day capacity to meet the growing needs of the NAWS project service area. Phase I was completed and addressed the filter capacity. Phase II construction contract (Contract 7-1B) is to install two softening basins at a cost of \$28.8 million will be completed in the fall 2020.

The completion of Minot's Phase II project will provide additional water capacity in the NAWS system for transmission pipeline segments that could be completed in 2020. Those segments are the Glenburn to Renville corner (Contract 2-3C) at an estimated cost of \$7 million and Westhope and All Seasons System III (Contract 2-4A) at an estimated cost of \$6.4 million. Also, two more segments are needed to bring water to Bottineau: Westhope to Souris Corner (Contract 2-4B) with a design cost of \$0.4 million and Souris Corner to Bottineau and ASWU System I (Contract 2-4C) with a design cost of \$0.5 million.

Design and construction of other NAWS contract features should be reviewed to have bid documents prepared to complete the construction in a timely manner with the intake and Biota Water Treatment Plant: Snake Creek Pumping Facility Retrofit (Contract 6-1A) with a cost of \$2.2 million; Supply System Evaluation of existing components (Contract 2-1E) with a cost of \$2.7 million; South Prairie Control Structure and Reservoir Bypass (Contract 5-2A) with a cost of \$3.3 million; and, Inline Water Pipeline Booster Pump Stations (Contract 4-2-D) with a design cost of \$0.2 million. Approximately \$2 million is needed for ongoing costs for NAWS such as engineering, land, legal, permits, and construction, with another \$1.3 million for 2.3 percent of contingency funds.

Project funding is split between federal and local with Biota features at 100 percent federal responsibility, other features shared at 65 percent federal, and 35 percent local being paid by Minot. The constant fluctuations in annual federal appropriations requires the state to cover some of the required federal funding to ensure construction progress. The project contract features total \$59.8 million with the federal share at \$40.8 million and Minot's share at \$19.0 million. The current approved funding to cover the federal share is \$34.3 million with \$11.8 million coming through the federal MR&I program and \$22.5 million fronted by the state. The difference between the \$40.8 million of required federal share and the \$34.3 million currently obligated is the \$6.5 million now being recommended for approval.

The first request was for reallocating federal funding of \$1.9 million for the Minot Phase II Project. This would be presented to the GDCD for their consideration at their October board meeting. Allocating the federal MR&I funds to NAWS will stretch the effectiveness of the state funds that have been obligated and budgeted.

The second request was to provide state water supply funding of \$4.6 million which essentially commits the balance of the 2017-2019 municipal and regional water supply purpose funding. The remaining funding estimates sheet and project map is attached as **APPENDIX E**.

Secretary Erbele recommended the State Water Commission approve the reallocation of federal MR&I funds of \$1,900,000 and approve an additional State Water Supply funding of \$4,600,000, to NAWS. The funding is subject to future revisions and the federal MR&I program requirements.

It was moved by Commissioner Owan and seconded by Commissioner Zimmerman that the State Water Commission approve the reallocation of federal MR&I funds of \$1,900,000, and approve an additional State Water Supply funds of \$4,600,000 to NAWS. The funding is subject to future revisions and the federal MR&I program requirements.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

NEW TOWN ELEVATED WATER TANK - \$900,000
(SWC Project No. 2050):

New Town requested additional cost-share for construction of a 250,000-gallon elevated water tower and water main to address water demands by increasing pressure and flows in the distribution system. New Town serves 2,500 people with the water supply from the New Town Aquifer using a water treatment plant. New Town water rate is \$40 per month minimum and \$7.03 per 1,000 gallons used.

New Town bid the project and intends to start construction in October 2018. The bid prices were impacted by rising steel costs resulting in a higher cost than the engineer's estimated eligible cost of \$1,796,000. Another increase in cost was four pressure reducing valves to address pressures in the distribution system. The new cost estimate is \$3,605,243 with pre-construction costs of \$171,500, construction costs of \$3,133,292, and ineligible costs of \$300,451. The ineligible costs include construction of a water depot and a tank logo.

On August 23, 2017, New Town received cost-share approval of \$1,040,000, including 35 percent on pre-construction and 60 percent on construction. With pre-construction

funded at 35 percent and construction at 60 percent, the total cost-share is now \$1,940,000 which is an additional \$900,000. The local share will be a loan through the Drinking Water State Revolving loan fund. The letter request, Cost-Share Request Form, and supporting material is attached as **APPENDIX F**.

Secretary Erbele recommended the State Water Commission approve an additional \$900,000, resulting in a total cost-share of \$1,940,000 with pre-construction costs funded at 35 percent and construction costs funded at 60 percent for the New Town Water Tower Project. The funding is for eligible costs and contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioner Owan that the State Water Commission approve an additional cost-share of \$900,000, paid on eligible costs for 35 percent pre-construction costs and 60 percent construction costs. The action is contingent upon the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

STATE COST-SHARE PARTICIPATION REQUESTS – FLOOD CONTROL, CONVEYANCE, AND GENERAL WATER

MINOT SYSTEM-WIDE IMPROVEMENT FRAMEWORK (SWIF) - \$387,433 **(SWC Project No. 2107-02):**

On June 22, 2017 the State Water Commission approved \$950,254 for Minot's 2017 Levee Repair, Bank Stabilization, and Snagging and Clearing Project which included improvements necessitated as part of the SWIF process for their existing flood control system. Bids for the construction came in under the engineer's original estimate, and Minot requested the unused funds of \$368,778 be reallocated to additional SWIF related efforts. The request for the reallocation of \$368,778 was approved on June 14, 2018.

In addition to requesting reallocation of \$368,778, Minot had also requested an additional \$387,433 of new funds. The new funds were not obligated at the time due to funding constraints. However, since that time several projects have turned back funding due to bids coming in lower than anticipated.

The project includes two additional SWIF related flood control projects that would protect areas behind the current levee system in Minot by constructing gate wells to better manage storm water behind the levees and prevent backflow from the river. The bank stabilization portions are eligible for up to 50 percent cost-share, and the flood

control portions of the project are eligible for up to 60 percent in cost-share. With the \$368,778 approved on June 14, 2018, and the current recommendation of \$387,433, the total state cost-share for Minot's 2018 SWIF Outfall Pipe Rehabilitation Project would be \$756,211. The supporting material is attached as **APPENDIX G**.

Secretary Erbele recommended the State Water Commission approve the request of Minot for state cost-share participation in the 2018 SWIF Outfall Pipe Rehabilitation project at an amount not to exceed \$387,433. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Johnson and seconded by Commissioner Pedersen that the State Water Commission approve the request for state cost-share participation in the 2018 SWIF Outfall Pipe Rehabilitation project at an amount not to exceed \$387,433. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

**CASS COUNTY JOINT WATER RESOURCE DISTRICT, SHELDON ADDITION
LEVEE - \$370,200**
(SWC Project No. 2118):

Cass County Joint Water Resource District (District) requested cost-share assistance for a Sheldon Subdivision levee.

The project is located north of Highway 10 between Mapleton and West Fargo and provides protection to 14 homes. The District has completed the preliminary engineering. The project will include a 3,100-foot-long levee constructed on the north and east sides of the addition, tying into the township road on the west side and Cass County Highway 10 on the south side. The township road on the west side will be raised to a higher elevation. Culverts with sluice gates will be included to allow for interior drainage.

The estimated total project cost is \$617,000, and the request is for \$370,200 in state funds. The project is eligible for up to 60 percent cost-share as a flood control project. The supporting material is attached as **APPENDIX H**.

Chris Gross, Project Engineer, Moore Engineering, presented a map of the project area, attached as **APPENDIX I**. The map shows the FM Diversion channel centerline and the location of the Sheldon Subdivision which is outside of the FM Diversion project and will

not be considered for inclusion. Mr. Gross also clarified the subdivision was built in the 1970s and flooding in the area occurred in 1997, 2000, 2007, 2009, and 2011.

Secretary Erbele recommended the State Water Commission approve the request by the District for state cost-share participation in the Sheldon Subdivision Levee project at an amount not to exceed \$370,200. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Goehring and seconded by Commissioner McDonald that the State Water Commission approve the state cost-share participation in the Sheldon Subdivision Levee project at an amount not to exceed \$370,200. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Anderson, Johnson, McDonald, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. Commissioners Andersen, Owan, and Pedersen voted nay. Lt. Governor Sanford announced the motion carried.

VALLEY CITY, PERMANENT FLOOD PROTECTION, PHASE III – \$1,786,179
(SWC Project No. 1504-07):

Valley City requested cost-share assistance for their Permanent Flood Protection Phase III project.

The proposed Phase III project covers a portion of the area required to protect the Sanitary Sewer Master Lift Station. The project includes floodwalls, utility relocation, and storm sewer. The estimated construction cost for Phase III of permanent flood protection is approximately \$1.9 million. The current funding request includes money for construction and construction engineering. A previously approved request in December 2017 included surveying, design engineering, permitting, and geotechnical exploration of the project areas. The estimated total project cost is \$2,232,724, and Valley City is requesting 80 percent cost-share of \$1,786,179 for construction and construction engineering. The request is based on the precedent of 60 percent cost-share as a flood control project plus 20 percent to mitigate the additional flood risk from the Devils Lake outlets. This cost-share exception to policy of 80 percent for construction was approved on May 29, 2014, for Valley City's Permanent Flood Protection project. The Cost-Share Request Form and supporting material is attached as **APPENDIX J**.

Secretary Erbele recommended the State Water Commission approve the request by Valley City for state cost-share participation in the Permanent Flood Protection

Phase III at an amount not to exceed \$1,786,179 at 80 percent cost-share. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Andersen and seconded by Commissioner Owan that the State Water Commission approve the state cost-share participation in the Permanent Flood Protection Phase III project at an amount not to exceed \$1,786,179. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Commissioner Pedersen abstained from voting. Lt. Governor Sanford announced the motion carried.

WALSH COUNTY WATER RESOURCE DISTRICT, COUNTY DRAIN 30-2 - \$328,042 (SWC Project No. 1520):

Walsh County Water Resource District (District) requested cost-share assistance for the establishment of Walsh County Drain 30-2.

Walsh County Drain 30-2 is a newly constructed lateral to Walsh County Drain 30. It is located east of Grafton and drains an area of 1,980 acres. On November 22, 2016, the District submitted a request for a pre-approval for Walsh County Drain 30-2. After reviewing the project, it was determined that the project would be eligible for cost-share. The assessment vote passed, and Drain Permit #4924 was approved.

The area around Drain 30-2 experiences prolonged inundation resulting in crop damages. Drain 30-2 and the north lateral will provide approximately five-year drainage capacity for the area through construction of a channel with an 8-foot bottom width and 3:1 side slope. The culverts will be resized to facilitate a five-year design capacity and to meet applicable North Dakota stream crossing standards.

The estimated total project cost is \$826,147. The project is eligible for up to 45 percent cost-share as a rural flood control project, thus the eligible cost-share is \$328,042 in state funds. The supporting material is attached as **APPENDIX K**.

Secretary Erbele recommended the State Water Commission approve the request by the District for state cost-share participation in the establishment of Walsh County Drain 30-2 project at an amount not to exceed \$328,042. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Goehring and seconded by Commissioner Zimmerman that the State Water Commission approve the state cost-share participation in the establishment of Walsh County Drain 30-2 project at an amount not to exceed \$328,042. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

MORTON COUNTY WATER RESOURCE DISTRICT, HARMON LAKE - \$102,882 (SWC Project No. 1921):

Morton County Water Resource District (District) requested cost-share payment in the total amount of \$102,882 for the Harmon Lake recreation project.

On March 32, 2009, the State Water Commission approved cost-share for the Harmon Lake recreation facility project. The estimated total cost of the project was \$6,300,000. \$2,807,198 was considered eligible for state cost-share assistance as a recreation project at 33 percent, for a cost-share amount of \$935,639 in state funds. The estimated cost to the District was \$2,557,163.

On March 3, 2016, the District's board of managers passed a motion to release \$500,000 of the funds for the Harmon Lake recreation facility. On June 22, 2017, the Commission decided not to carry over the remaining balance of \$173,828 of obligated but unspent cost-share. The Commission recommended the project be closed out and the remaining funds turned back. A letter was sent to the District on September 1, 2017, informing the District of the Commission's decision not to carry over the unspent cost-share funding to the 2017-2019 biennium. The District was asked to turn in any final payment requests, because of time constraints during which expenses can still be charged to the prior biennium. The District did not submit additional payment requests until May 3 and July 2, 2018.

The payment requested in May 2018 (\$93,209.76) was for paving of the access road completed in 2012 by the Morton County Highway Department on behalf of the District. The work was apparently not invoiced until 2018. The payment requested in July 2018 (\$9,672.31) was for transplanting trees and for a double kayak launch; this work was completed in 2017, after the funds had been de-obligated. Because the funding was not carried over to the current biennium, there was no mechanism to pay the invoices from the prior approval, and a new Commission obligation would be required. Staff met with the project sponsor and expressed the opinion that payment on work completed in 2012 was not appropriate so long after the project had been de-obligated, and the work completed in 2017 could have been taken to the Commission if the sponsor had

requested the funding before completing the work. The project sponsor asked for an opportunity to present the requests to the Commission. The supporting material is attached as **APPENDIX L**.

Secretary Erbele recommended the State Water Commission deny the request by the District for state cost-share reimbursement in the amount of \$102,882 for the Harmon Lake recreation facility.

It was moved by Commissioner Goehring and seconded by Commissioner Zimmerman that the State Water Commission deny the state cost-share request of Morton County Water Resource District in the amount of \$102,882.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

WALSH COUNTY WATER RESOURCE DISTRICT, MATEJCEK DAM - \$279,750 (SWC Project No. 2060-01):

Walsh County Water Resource District (District) requested cost-share assistance for the rehabilitation of Forest River Dam No. 1 (Matejcek Dam).

Matejcek Dam is a high hazard dam, constructed in 1966 through funding and technical assistance provided by the NRCS watershed program. The dam is owned and operated by the District. The dam was constructed for flood control, wildlife, and recreation purposes.

The auxiliary spillway and riser structure do not meet current NRCS or State Water Commission dam safety standards. In terms of 100-year activation criteria, the crest elevation of the auxiliary spillway is 8.7 feet lower than would be required to meet NRCS TR-60 and 7.8 feet lower than would be required to meet State Water Commission criteria. The auxiliary spillway is projected to completely breach during the freeboard design hydrograph event. The principal spillway does not meet the 10-day drawdown requirement for the principal spillway hydrograph event. In addition, the low-elevation drawdown gate is inoperable, and there are numerous geotechnical and seepage related deficiencies with the structure. At risk from a dam failure include a maximum population of 40 individuals, 34 structures, two state highways, multiple county and township roads, recreation facilities, historical and cultural resources, and degradation of river, wetland, and riparian habitat.

The requested funds will complete a watershed rehabilitation plan, as required through Public Law 83-566. This planning effort will investigate geologic, structural, and hydrologic concerns with the dam, and develop alternatives to address the concerns.

Environmental and societal concerns will be evaluated to develop a cost effective, permittable alternative be carried forward. The District has worked with the NRCS to secure \$500,000 from the National Watershed Rehabilitation Program to begin detailed planning and design for rehabilitation.

The estimated total project cost is \$873,000, and the District is requesting \$279,750, or 75 percent of the non-federal share, in state funds. The project is eligible for up to 75 percent cost-share as a dam safety project from the funds provided for General Water Management. The letter request, Cost-Share Request Form, and supporting material are attached as **APPENDIX M**.

Secretary Erbele recommended the State Water Commission approve the request for state cost-share participation in the Matejcek Dam rehabilitation project at an amount not to exceed \$279,750. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioner Andersen requested State Water Commission staff compile updated high hazard dam information to determine how many dams in North Dakota will, in time, need repairs. This will enable the State Water Commission to plan for projected costs in future budgets ensuring the funds are available.

It was moved by Commissioner Johnson and seconded by Commissioner Pedersen that the State Water Commission approve the state cost-share participation in the Matejcek Dam rehabilitation project at an amount not to exceed \$279,750. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

SARGENT COUNTY WATER RESOURCE DISTRICT, BRUMMOND-LUBKE DAM - \$317,111
(SWC Project No. 0848):

Sargent County Water Resource District (District) requested cost-share assistance for the Brummond-Lubke Dam Improvements project.

Brummond-Lubke Dam is a medium hazard potential dam, constructed in 1963 and permitted by the State Water Commission under Water Permit No. 01429. The dam is owned and operated by the District. The dam was designed by the Soil Conservation

Service and provides flood protection for properties along the tributary and the Wild Rice River.

The project would provide erosion protection on the dam embankment along the upstream side, which has eroded over time due to wave action. The eroded areas pose a risk to the stability of the dam embankment which makes it susceptible to failure. The District proposes to install a line of riprap along the upstream dam face to protect the embankment from future erosion. The riprap will begin at the existing bench elevation and will continue up the face of the dam six feet. The placement of riprap in the area will reduce the risk of future erosion. Preliminary engineering is complete, and the project is estimated to be complete in summer 2019.

The estimated total project cost is \$440,000, and the District is requesting \$317,111 in state funds. The project is eligible for up to 75 percent cost-share as a dam safety project from the funds provided for General Water Management. The letter request, Cost-Share Request Form, and supporting material is attached as **APPENDIX N**.

Secretary Erbele recommended the State Water Commission approve the request by the District for state cost-share participation in the Brummond-Lubke Dam improvements project at an amount not to exceed \$317,111. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Pedersen and seconded by Commissioner Anderson that the State Water Commission approve the state cost-share participation in the Brummond-Lubke Dam improvement project at an amount not to exceed \$317,111. The approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

PROBABLE MAXIMUM PRECIPITATION (PMP) ESTIMATES FOR NORTH DAKOTA - \$600,000
(SWC Project No. 1965):

Aaron Carranza, Director of Regulatory Division, presented a funding request to release a Request for Qualifications for interested firms to submit their proposals, select a firm, and initiate the start of a study to compile updated data and information related to PMP. The full memorandum and letters of support presented is attached as **APPENDIX O**.

Preliminary discussions with potential contractors indicate a total cost between \$500,000 to \$600,000 for completion of the study. Additional funding assistance may be available from the NRCS pending their Fiscal Year 2019 Budget, and final scoping of the study may reduce the overall cost. The estimated duration of the study is projected to be 12-18 months, and could begin as early as January 2019.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission approve the funding request for the Revision of Probable Maximum Precipitation Estimates study at an amount not to exceed \$600,000. The approval is subject to the availability of funds.

Commissioners Andersen, Anderson, Johnson, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. Commissioner McDonald stepped out and was absent for the vote. There were no nay votes. Lt. Governor Sanford announced the motion carried.

SOUTHWEST WATER PIPELINE PROJECT (SWPP):

Project Update

Sindhuja S.Pillai-Grinolds, SWPP Project Manager, provided a project update, attached as **APPENDIX P**.

SWPP Contract 4-1E/4-2B Pump Station upgrades at Dodge and Richardton Award

Sindhuja provided information on the contract award needed for 4-1E/4-2B Pump Station upgrades at Dodge and Richardton, also attached as **APPENDIX P**.

Secretary Erbele recommended the State Water Commission authorize:

- Chief Engineer and Secretary award (1) SWPP Contract 4-1E/4-2B – General to PKG Contracting, Inc. \$5,420,489 based on Bid Section I with Alternate Bid Alternate G-D-1; (2) SWPP Contract 4-1E/4-2B – Mechanical to Central Mechanical, Inc. \$428,700 based on Bid Section II with Bid Alternates M-1-D and M-1-R; and, (3) SWPP Contract 4-1E/4-2B – Electrical to Edling Electric, Inc. \$488,700 based on Bid Section III. The award of the contracts will be dependent upon legal review of the contract documents and concurrence from the Garrison Diversion Conservancy District.
- State Water Commission approve \$7.2 million to the Southwest Pipeline Project from the funds appropriated for the 2017-2019 biennium.

- State Water Commission approve reimbursement from the Reserve Fund for Replacement and Extraordinary Maintenance for the Bid Alternates G-D-1, M-1-D and M-1-R along with construction administration, in an amount not to exceed \$400,000.

It was moved by Commissioner Owan and seconded by Commissioner McDonald that the State Water Commission approve:

- 1. Chief Engineer and Secretary award (1) SWPP Contract 4-1E/4-2B – General to PKG Contracting, Inc. \$5,420,489 based on Bid Section I with Alternate Bid Alternate G-D-1; (2) SWPP Contract 4-1E/4-2B – Mechanical to Central Mechanical, Inc. \$428,700 based on Bid Section II with Bid Alternates M-1-D and M-1-R; and, (3) SWPP Contract 4-1E/4-2B – Electrical to Edling Electric, Inc. \$488,700 based on Bid Section III. The award of the contracts will be dependent upon legal review of the contract documents and concurrence from the Garrison Diversion Conservancy District.**
- 2. State Water Commission approve \$7.2 million to the Southwest Pipeline Project from the funds appropriated for the 2017-2019 biennium.**
- 3. State Water Commission approve reimbursement from the Reserve Fund for Replacement and Extraordinary Maintenance for the Bid Alternates G-D-1, M-1-D and M-1-R along with construction administration, in an amount not to exceed \$400,000.**

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

SWPP Request for Proposal (RFP) for Transfer of Ownership of SWPP and Funding Models

Sindhuja provided information on the RFP for transfer of ownership of SWPP and funding models, also attached as **APPENDIX P**.

After discussion the following motions were made:

- 1. It was moved by Commissioner Andersen and seconded by Commissioner Johnson that the submittal due date of written submittals from qualified consultants be changed from “January 14, 2019” to “December 14, 2018.”**

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

2. It was moved by Commissioner Andersen and seconded by Commissioner Owan that the third bullet under Minimum Qualifications be changed from “Firms working on SWPP, NAWS, WAWS, or RRVWSP will not be considered eligible for this RFP” to “Firms working on SWPP, NAWS, WAWS, or RRVWSP may not be considered eligible for this RFP unless they can mitigate or prove they do not have a demonstrable conflict or bias.”

Commissioners Andersen and Owan voted aye. Commissioners Anderson, Johnson, McDonald, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted nay. Lt. Governor Sanford announced the motion failed.

3. It was moved by Commissioner Goehring and seconded by Commissioner McDonald that an additional item be added under the Draft Scope of Services to state “To evaluate or study the potential impact of rates to existing water users.” This item will be 7) with current numbers changing to 8), 9), and 10).

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

PROJECT UPDATES:

Commission staff provided brief updates on the following projects with the summary updates attached as **APPENDIX Q:**

Jon Kelsch, Construction Section Chief, Devils Lake Outlet;
Laura Ackerman, Investigations Section Chief, Missouri River and Mouse River;
Tim Freije, Project Manager, NAWS.

PROPOSED LEGISLATIVE CHANGES:

Jennifer Verleger, General Counsel, Attorney General’s Office, presented proposed legislative changes to amend NDCC § 61-34-04 and repeal NDCC § 61-02-78, attached as **APPENDIX R**. The prefile deadline is December 6, 2018.

It was moved by Commissioner Goehring and seconded by Commissioner Anderson that the proposed legislative changes to amend NDCC § 61-34-04 and repeal NDCC § 61-02-78 be approved and pre-filed prior to the deadline of December 6, 2018.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

ROUNDTABLE UPDATES WITH COMMISSIONERS:

Commissioner Pedersen reported on Commissioners and State Water Commission staff participation at the joint meeting with the Water Topics Overview Committee in Fargo on September 25-26. Attendees toured the FM Diversion and Commissioner Pedersen shared that Rep. Schmidt spoke highly of the newly appointed Commission.

Commissioner Anderson discussed issues related to utility and railroad companies charging rural water systems additional service fees for permitting easements. In the past, the Legislature and State Water Commission have interceded with various bills to address the issue, but lately state laws have been ignored. BNSF is charging an additional \$5,600 for the permitting process to be completed by their engineers for which the local depot managers are able to assist with the process at no cost. This is adding a financial hardship and time constraint to the permitting process. Commissioner Anderson requested the Commission address the issue with Legislators and to possibly send a statement out to attempt to mitigate the issue.

Commissioner Anderson also provided information on the low head dams in North Dakota, attached as **APPENDIX S**. Most low head dams were constructed in the 1930s and are now becoming a safety concern as well as a financial draw to the state when repairs are needed.

Commissioner Anderson suggested the State Water Commission staff compile and update the current list of low head dams in North Dakota, complete the inventory by county and prioritize, and create a timeframe for improvement and repair. Funding to repair the dams would be sought through local, state, and federal programs, and the dam projects be added to future biennial State Water Commission plans.

Commissioner Johnson stated he would attend the Devils Lake Outlet mediation with State Water Commission staff scheduled for October 16-17.

The next meeting is scheduled for 9:00 a.m., December 7, 2018, Ramkota Hotel, Bismarck.

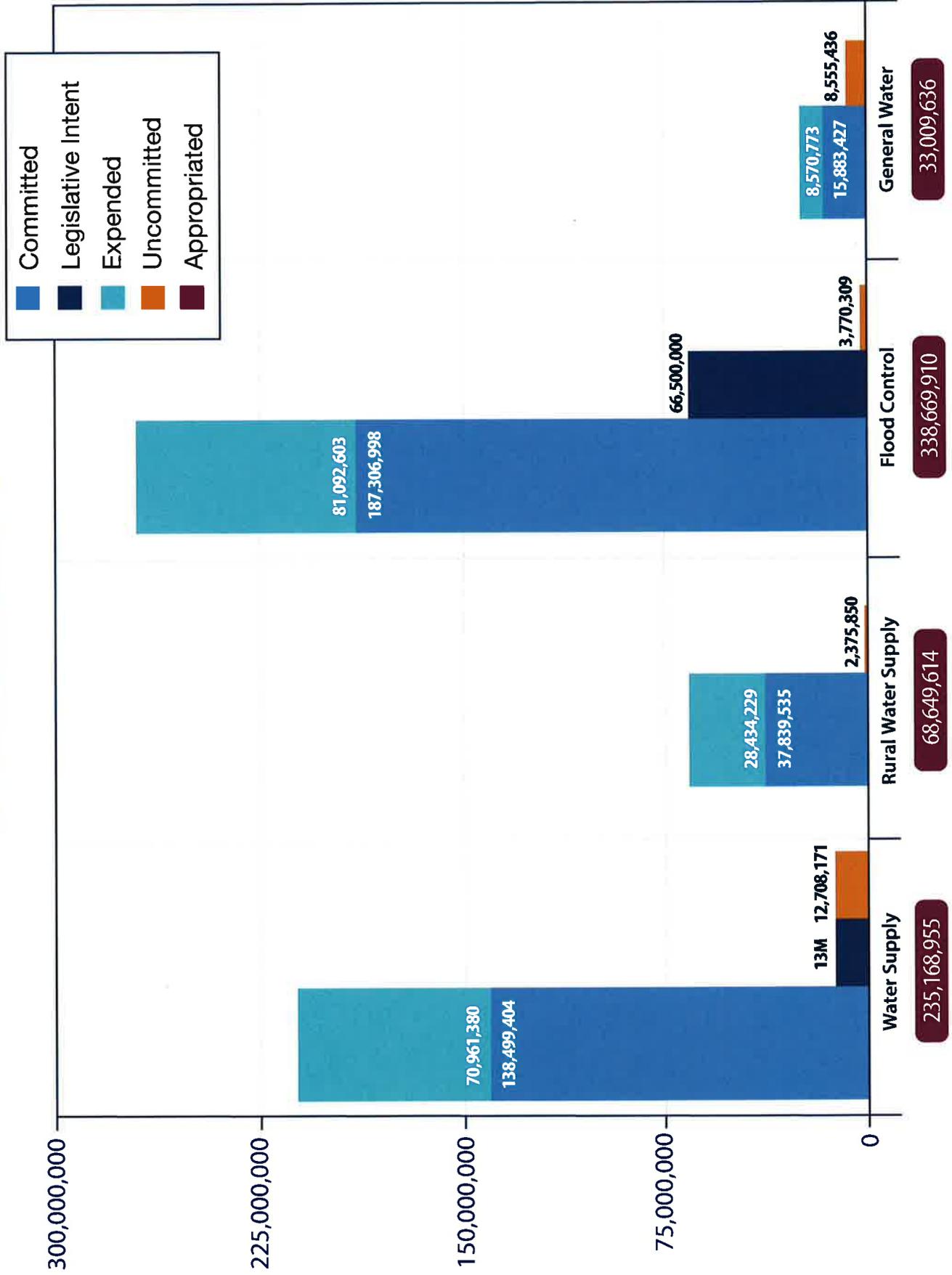
There being no further business to come before the State Water Commission,
Lt. Governor Sanford adjourned the October 11, 2018, meeting at 4:37 p.m.



Brent Sanford, Lt. Governor
Acting Chairman, State Water Commission

Garland Erbele, P.E.
North Dakota State Engineer,
and Chief Engineer-Secretary
to the State Water Commission

PROJECT FUNDS



**STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 BIENNIUM**

Aug-18

	2015-2017 CARRYOVER	2017-2019 FUNDING	2017-2019 BUDGET	SWC/SE APPROVED	REMAINING UNOBLIGATED
MUNICIPAL & REGIONAL WATER SUPPLY:					
MUNICIPAL WATER SUPPLY	54,802,659	41,055,248	95,857,907	95,857,907	0
RED RIVER VALLEY	0	30,000,000	30,000,000	17,000,000	13,000,000
OTHER REGIONAL WATER SUPPLY	60,241,296	36,361,581	96,602,877	96,602,877	0
UNOBLIGATED MUNICIPAL/REG WATER SUPPLY		12,708,171	12,708,171		12,708,171
RURAL WATER SUPPLY:					
RURAL WATER SUPPLY	41,195,208	25,078,556	66,273,764	66,273,764	0
UNOBLIGATED RURAL WATER SUPPLY		2,375,850	2,375,850		2,375,850
FLOOD CONTROL:					
FARGO	78,376,087	66,500,000	144,876,087	78,376,087	66,500,000
MOUSE RIVER	28,819,192	57,757,293	86,576,485	86,576,485	0
VALLEY CITY	13,693,459	914,175	14,607,634	14,607,634	0
LISBON	9,000,010	0	9,000,010	9,000,010	0
OTHER FLOOD CONTROL	36,063,386	551,342	36,614,728	36,614,728	0
PROPERTY ACQUISITIONS	16,849,083	7,408,241	24,257,324	24,257,324	0
WATER CONVEYANCE	19,914,006	(945,773)	18,968,233	18,968,233	0
UNOBLIGATED FLOOD CONTROL		3,814,721	3,814,721		3,814,721
GENERAL WATER:					
GENERAL WATER	17,255,761	7,198,439	24,454,200	24,454,200	0
UNOBLIGATED GENERAL WATER		8,555,436	8,555,436		8,555,436
REVOLVING LOAN FUND:					
GENERAL WATER PROJECTS	4,681,900	900,000	5,581,900	5,581,900	0
WATER SUPPLY	354,000	0	354,000	354,000	0
TOTALS	381,246,045	300,233,282	681,479,327	574,525,148	106,954,179

**STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 BIENNIUM**

	SWC/SE APPROVED	EXPENDITURES	<i>Aug-18</i> REMAINING UNPAID
MUNICIPAL & REGIONAL WATER SUPPLY:			
MUNICIPAL WATER SUPPLY	95,857,907	22,367,574	73,490,332
RED RIVER VALLEY	17,000,000	7,000,000	10,000,000
OTHER REGIONAL WATER SUPPLY	96,602,877	41,593,805	55,009,072
RURAL WATER SUPPLY:			
RURAL WATER SUPPLY	66,273,764	28,434,229	37,839,535
FLOOD CONTROL:			
FARGO	78,376,087	21,058,848	57,317,239
MOUSE RIVER	86,576,485	14,530,847	72,045,638
VALLEY CITY	14,607,634	5,542,477	9,065,157
LISBON	9,000,010	4,402,167	4,597,843
OTHER FLOOD CONTROL	36,614,728	9,927,206	26,687,522
PROPERTY ACQUISITIONS	24,257,324	20,025,229	4,232,095
WATER CONVEYANCE	18,968,233	5,605,829	13,362,404
GENERAL WATER:			
GENERAL WATER	24,454,200	8,570,773	15,883,427
REVOLVING LOAN FUND:			
GENERAL WATER PROJECTS	5,581,900	2,292,500	3,289,400
WATER SUPPLY	354,000	354,000	0
TOTALS	574,525,148	191,705,483	382,819,665
	574,525,148	191,705,483	382,819,665

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium

WATER SUPPLY

				<i>Aug-18</i>				
Approved SWC By	No	Dept	Sponsor	Project	Approved Date	Total Approved	Total Payments	Balance
				Municipal Water Supply:				
	2050-13	5000	Mandan	New Raw Water Intake	10/7/2013	1,515,672	117,447	1,398,225
	2050-15	5000	Washburn	New Raw Water Intake	10/7/2013	2,281,927	140,716	2,141,211
	2050-18	5000	Grafton	Water Treatment Plant Phase 3	10/7/2013	48,822	48,822	(0)
	2050-20	5000	Dickinson	Capital Infrastructure	10/6/2015	1,731,926	0	1,731,926
	2050-21	5000	Watford City	Capital Infrastructure	8/1/2015	536,627	13,873	522,754
	2050-26	5000	Fargo	Fargo Water System Regionalization Improvements	7/29/2015	4,131,788	1,254,302	2,877,486
	2050-28	5000	Mandan	Water Systems Improvement Project	10/6/2015	2,005,765	1,641,484	364,281
	2050-29	5000	Minot	Water Systems Improvement Project	10/6/2015	3,478,647	2,090,403	1,388,244
	2050-30	5000	Watford City	Water Systems Improvement Project	10/6/2015	5,374,639	89,774	5,284,865
	2050-31	5000	West Fargo	Water Systems Improvement Project	10/6/2015	1,086,602	392,388	694,214
	2050-32	5000	Williston	Water Systems Improvement Project	10/6/2015	7,857,010	0	7,857,010
	2050-36	5000	Dickinson	Water Systems Improvement Project	10/6/2015	674,881	0	674,881
	2050-37	5000	Dickinson	Dickinson State Avenue South Water Main	12/11/2015	963,920	0	963,920
	2050-44	5000	Beulah	Water Treatment Plant	3/9/2016	1,639,813	1,541,795	98,018
	2050-49	5000	Grand Forks	Grand Forks Water Treatment Plant	8/23/2017	50,645,520	14,479,270	36,166,249
	2050-51	5000	Mercer	Connect to McLean-Sheridan	8/23/2017	166,950	0	166,950
	2050-52	5000	New Town	Water Transmission Storage	8/23/2017	1,040,000	66,273	973,728
	2050-53	5000	West Fargo	Brooks Harbor Water Tower	8/23/2017	1,950,000	0	1,950,000
	2050-54	5000	West Fargo	North Loop Connection	8/23/2017	510,000	0	510,000
	2050-55	5000	West Fargo	West Loop Connection	8/23/2017	1,110,000	0	1,110,000
	2050-56	5000	Williston	US Highway 2 Water Main	8/23/2017	434,400	419,029	15,371
	2050-66	5000	Lincoln	Lincoln Water System Improvement Project	2/8/2018	1,130,000	0	1,130,000
	2050-67	5000	Williston	Williston Water System Improvements	2/8/2018	2,336,000	0	2,336,000
	2050-69	5000	Mandan	Sunset Reservoir Water Transmission Line	4/12/2018	3,135,000	0	3,135,000
	2050-70	5000	Wing	Water Tower Repair	4/12/2018	72,000	72,000	0
TOTAL MUNICIPAL WATER SUPPLY						95,857,907	22,367,574	73,490,332
				Regional Water Supply:				
	1736-05	8000	SWPP	Southwest Pipeline Project	7/1/2017	45,049,989	25,505,536	19,544,454
	2374	9000	NAWS	Northwest Area Water Supply	2/8/2018	22,508,462	2,888,889	19,619,572
HB 1020	1973-02	5000	WAWSA	WAWSA	9/15/2014	155,603	155,603	(0)
	1973-05	5000	WAWSA	WAWSA	10/6/2015	8,888,823	5,618,654	3,270,168
	1973-06	5000	WAWSA	WAWSA	12/8/2017	20,000,000	7,425,122	12,574,878
	325-105	5000	RRVWSP	RRVWSP Garrison Diversion	8/23/2017	17,000,000	7,000,000	10,000,000
TOTAL REGIONAL WATER SUPPLY						113,602,877	48,593,805	65,009,072
				Rural Water Supply:				
	2050-17	5000	Barnes Rural RWD	Improvements	3/11/2015	1,096,634	1,096,634	0
	2050-23	5000	Greater Ramsey WRD	SW Nelson County Expansion	8/23/2017	1,364,794	624,103	740,690
	2050-25	5000	All Seasons Water District	Bottineau County Extension, Phase I	7/29/2015	299,358	0	299,358
	2050-33	5000	Stutsman RWD	Phase V Storage & Pipeline Expansion Project	10/6/2015	1,172,760	733,778	438,982
	2050-34	5000	North Prairie RWD	Storage and Water Main	10/6/2015	1,968,086	838,100	1,129,985
	2050-35	5000	Southeast Water Users Dist	System Wide Expansion Feasibility Study	8/23/2017	13,159,145	6,816,234	6,342,911
	2050-38	5000	Dakota Rural Water District	Reservoir C Expansion	12/11/2015	90,841	52,601	38,240
	2050-41	5000	Northeast Regional WD	City of Devils Lake Water Supply Project	12/11/2015	12,789,020	11,730,549	1,058,470
	2050-42	5000	Walsh RWD	Phase 1 & 2 System Expansion	12/11/2015	1,639,753	1,130,674	509,079
	2050-43	5000	All Seasons Water District	System 4 Connection to System 1	12/11/2015	4,900,000	0	4,900,000
	2050-45	5000	Garrison Rural Water District	System Expansion Project	3/9/2016	1,271,241	1,271,241	0
	2050-50	5000	Grand Forks Traill RWD	Eastern Expansion & TRWD Interconnect Fesibility	8/23/2017	126,000	126,000	0
	2373-39	5000	North Central Rural Water Consortium	Carpio Berthold Phase 2	4/1/2015	2,425,167	829,410	1,595,757
	2373-41	5000	North Central Rural Water Consortium	Granville-Deering Area	10/24/2016	1,831,540	1,328,154	503,386
	2050-57	5000	North Central Regional Water District	Mountrail Expansion Phase II	8/23/2017	3,086,000	16,258	3,069,743
	2050-58	5000	North Central Regional Water District	Mountrail Co. Watery Phase III	8/23/2017	3,430,000	0	3,430,000
	2050-59	5000	Cass Rural Water District	Horace Storage Tank	8/23/2017	91,000	0	91,000
	2050-60	5000	North Prairie Rural District	Reservoir 9 Water Supply	6/12/2018	1,114,620	22,494	1,092,126
	2050-61	5000	North Prairie Rural District	Surrey/Silver Spring	6/12/2018	107,430	3,406	104,024
	2050-62	5000	Traill Rural District	Expansion/Interconnect	8/23/2017	150,880	150,880	0
	2050-63	5000	Walsh RWD	System Expansion Project	4/12/2018	1,300,000	151,664	1,148,336
	2050-64	5000	McLean-Sheridan Water District	Turtle Lake Water Tower	8/9/2018	2,378,450	0	2,378,450
	2050-65	5000	Tri-County Rural Water District	System Expansion Project	8/9/2018	2,803,250	0	2,803,250
	2050-71	5000	East Central RWD	Grand Forks/Traill Project	8/9/2018	5,577,795	1,512,048	4,065,747
	2050-72	5000	Stutsman RWD	Phase 6 Pettibone Project	4/12/2018	2,100,000	0	2,100,000
TOTAL RURAL WATER SUPPLY						66,273,764	28,434,229	37,839,535
TOTAL						275,734,548	99,395,608	176,338,940

SWC Board Approved to Continue

**STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium**

FLOOD CONTROL

Approved SWC					Approved	Total	Total	Aug-18
By	No	Dept	Sponsor	Project	Date	Approved	Payments	Balance
Flood Control:								
SB 2020	1928-01	5000	Fargo	Fargo Flood Control Project	4/19/2016	20,001,131	20,001,131	0
SB 2020	1928-05	5000	Fargo Metro Flood Diversion	Fargo Metro Flood Diversion Authority 2015-2017	7/6/2016	58,374,956	1,057,717	57,317,239
	1771-01	5000	Grafton	Grafton Flood Control Project	10/12/2016	32,175,000	8,964,946	23,210,054
	1974-06	5000	Souris River Joint WRD	Development of 2011 Flood Inundation Maps	12/18/2015	1,522	0	1,522
	1974-09	5000	Souris River Joint WRD	Mouse River Flood Control Design Engineering	4/12/2018	276,696	276,696	0
	1974-11	5000	Souris River Joint WRD	Funding of 214 agreement between SRJB & USACE	12/5/2014	31,500	0	31,500
	1974-12	5000	Souris River Joint WRD	Maple Diversion Design MI-4	4/12/2016	1,345,000	12,282	1,332,718
	1974-14	5000	Souris River Joint WRD	STARR Program (Structure Acquisition, Relocation, or Ring Dike)	3/9/2016	5,895,975	2,793,966	3,102,009
	1974-13	5000	Souris River Joint WRD	Tierrecita Vilajo Levee Design	4/12/2016	1,170,000	0	1,170,000
	1974-15	5000	Souris River Joint WRD	Perkett Ditch Improvements	12/2/2016	404,593	272,916	131,677
	1974-16	5000	Souris River Joint WRD	Corps of Engineers Feasibility Study MREFPF	4/12/2016	505,546	442,632	62,914
	1974-18	5000	Souris River Joint WRD	Rural Reaches, Preliminary Engineering	10/12/2016	236,941	9,296	227,645
	1974-19	5000	Souris River Joint WRD	4th Avenue Tieback Levee & Burlington Levee - Design Engineering	4/12/2018	2,853,340	1,580,843	1,272,497
	1974-20	5000	Souris River Joint WRD	Utility Relocations	10/12/2016	422,034	11,289	410,745
	1974-21	5000	Souris River Joint WRD	Highway 83 Bypass & Bridge Replacement	10/12/2016	1,983,623	476,406	1,507,217
	1974-22	5000	Souris River Joint WRD	Broadway Pump Station Phases MI-1	3/29/2017	35,271,200	3,405,072	31,866,128
	1974-23	5000	Souris River Joint WRD	Peterson Coulee Outlet	3/29/2017	1,427,022	0	1,427,022
	1974-25	5000	Souris River Joint WRD	Flood Specific Emergency Action Plan for Ward Co.	7/20/2017	182,000	0	182,000
	1974-26	5000	Souris River Joint WRD	Phases MI-2, MI-3 Construction	8/23/2017	29,348,843	5,097,556	24,251,287
	1974-27	5000	Souris River Joint WRD	Corps of Engineers Section 408 Review Through Section 2145	8/23/2017	74,750	74,750	0
	1974-30	5000	Souris River Joint WRD	Mouse River Park Bridge Design	4/12/2018	390,000	0	390,000
	1974-31	5000	Souris River Joint WRD	Sawyer Bridge Design Project	4/12/2018	260,000	0	260,000
	1974-32	5000	Souris River Joint WRD	Velva Bridge Design Project	4/12/2018	260,000	0	260,000
	1974	5000	Souris River Joint WRD	Phases MI-2, MI-3 Reallocation	4/12/2018	3,932,500	0	3,932,500
	2122	5000	US Army Corps of Engineers	Development of Comprehensive Plan for Souris Basin	9/5/2017	302,500	77,143	225,357
	1344-04	5000	Valley City	Sheyenne River Valley Flood Control Project PHII	8/29/2016	58,414	38,278	20,136
	1504-01	5000	Valley City	Permanent Flood Protection Project	5/1/2015	477,445	422,018	55,427
SB 2371	1504-03	5000	Valley City	Permanent Flood Protection PH III	12/9/2016	13,157,600	5,082,181	8,075,419
	1504-06	5000	Valley City	Permanent Flood Protection PH III & PH V	12/8/2017	914,175	0	914,175
	1344-02	5000	Lisbon	Sheyenne River Valley Flood Control Project	8/8/2016	1,000,582	896,611	103,971
	1991-01	5000	Lisbon	Permanent Flood Protection Project	5/29/2014	146,969	0	146,969
	1991-03	5000	Lisbon	Permanent Flood Protection - Levee C Project	3/11/2015	377,799	6,989	370,810
	1991-06	5000	Lisbon	Permanent Flood Protection - Levee E Project	3/9/2016	84,125	52,000	32,125
	1991-08	5000	Lisbon	Permanent Flood Protection - Levee D Project	4/12/2018	2,886,535	2,625,848	260,687
	1991-10	5000	Lisbon	Permanent Flood Protection - Levee F Project	4/12/2018	4,504,000	820,719	3,683,281
	2079-01	5000	Williston	West Williston Flood Control	12/9/2016	3,655,517	807,820	2,847,697
	2131	5000	Lower Heart River WRD	Flood Risk Reduction Project	6/14/2018	280,000	0	280,000
	2008	5000	City of Mapleton	Recertification of Flood Control Levee System Project	4/12/2018	314,770	0	314,770
	2111	5000	Maple River WRD	Davenport Flood Risk Reduction	7/20/2017	35,000	0	35,000
	620	5000	Lower Heart WRD	Mandan River Control Protective Works (Levee)	6/22/2017	14,855	14,855	0
	1932	5000	Nelson Co. WRD	Michigan Spillway Rural Flood Assessment	3/9/2016	67,903	67,903	0
	1705	5000	Red River Joint Water Resource District	Red River Joint WRD Watershed Feasibility Study - Phase 2	9/21/2011	0	0	0
	2073	5000	Walsh Co. WRD	Oslo Area Ag Levee Feasibility Study	7/6/2016	71,683	71,683	0
Subtotal Flood Control						225,174,043	55,461,544	169,712,499
Floodway Property Acquisitions:								
	1993-05	5000	Minot	Minot Phase - Floodway Acquisitions	4/12/2018	14,093,720	11,971,718	2,122,002
SB 2371	1523-05	5000	Ward County/Minot	Ward County - Floodway Acquisitions	1/27/2012	6,015,347	5,484,142	531,205
SB 2371	1504-05	5000	Valley City	Valley City - Floodway Acquisitions	12/8/2017	3,406,947	2,027,831	1,379,116
SB 2371	2000-05	5000	Sawyer	Sawyer Phase - Floodway Acquisitions	6/13/2012	135,844	0	135,844
	1991-05	5000	Lisbon	Lisbon - Floodway Acquisition	12/9/2016	603,300	539,371	63,929
	1987-05	5000	Burlington	Mouse River Enhanced Flood Plan Property Acquisition	5/10/2017	2,166	2,166	0
Subtotal Floodway Property Acquisitions						24,257,324	20,025,229	4,232,095
TOTAL FLOOD CONTROL						249,431,367	75,486,772	173,944,595
Revolving Loan Fund:								
(General Water)								
	2077-16	1050	Valley City	Valley City Flood Protection - Phase II Construction (LOAN)	12/9/2016	3,289,400	0	3,289,400
	2077-15	1050	Valley City	Valley City Pre Design & Eng & Phase III Buyouts (LOAN)	12/9/2016	1,392,500	1,392,500	0
	2077-14	1050	Lisbon	Permanent Flood Control	8/23/2017	900,000	900,000	0
(Water Supply)								
	2077-13	1050	North Central Rural Water Consortium II	Carpio Berhold Phase 2 (LOAN)	10/12/2016	215,000	215,000	0
	2077-12	1050	North Central Rural Water Consortium	Granville-Surrey-Dearing Water Supply Project (LOAN)	10/12/2016	139,000	139,000	0
REVOLVING LOAN TOTAL						5,935,900	2,646,500	3,289,400
TOTAL						255,367,267	78,133,272	177,233,995

SWC Board Approved to Continue

**STATE WATER COMMISSION
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WATER CONVEYANCE

							Aug-18		
Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Approved Date	Total Approved	Total Payments	Balance
Drain & Channel Improvement Projects:									
SWC	1056	5000	2015-17	Bottineau Co. WRD	Tacoma Bitz Legal Drain	7/6/2016	210,572	49,978	160,594
SE	1056	2000	2015-17	Bottineau Co. WRD	Stead Legal Drain	2/16/2017	14,738	7,369	7,369
SE	1059	5000	2017-19	Bottineau Co WRD	Baumann Legal Drain	3/7/2018	41,427	0	41,427
SWC	1064	5000	2013-15	Rush River WRD	Cass County Drain No. 2 Channel Improvements Proje	3/11/2015	41,683	0	41,683
SWC	1070	5000	2015-17	Maple River WRD	Drain #14 Channel Improvements	3/29/2017	741,562	0	741,562
SWC	1071	5000	2015-17	Maple River WRD	Cass County Drain #15 Channel Improvements	3/9/2016	282,561	179,516	103,045
SWC	1088	5000	2015-17	Maple River WRD	Cass Drain #37 Channel Improvements	3/9/2016	215,157	77,902	137,255
SWC	1089	5000	2015-17	Maple River WRD	Cass County Drain #39 Channel Improvements	3/9/2016	210,568	89,616	120,952
SE	1180	5000	2015-17	Richland Co WRD	Legal Drain No. 7 Channel Improvements	5/11/2017	24,926	19,158	5,768
SWC	1101	5000	2011-13	Dickey Co. WRD	Yorktown-Maple Drainage Improvement Dist No. 3	11/1/2017	798,562	356,270	442,292
SE	1140	5000	2015-17	Pembina Co. WRD	Drain 11 Outlet Extension Cost Overrun Project	7/7/2015	5,088	0	5,088
SWC	1222	5000	2015-17	Sargent Co WRD	Drain No 11 Channel Improvements	10/12/2016	1,378,376	0	1,378,376
SWC	1236	5000	2015-17	Traill Co. WRD	Murray Drain No. 17 Channel Improvements	10/12/2016	127,759	100,838	26,921
SWC	1311	5000	2015-17	Traill Co. WRD	Buxton Township Improvement District No. 68	3/9/2016	110,418	81,285	29,133
SWC	1314	5000	2015-17	Wells Co. WRD	Hurdsfield Legal Drain	3/29/2017	644,292	0	644,292
SE	1328	5000	2015-17	North Cass Co. WRD	Drain No. 23 Channel Improv Preliminary Engineering	9/30/2015	921	0	921
SWC	1328	5000	2015-17	North Cass Co. WRD	Drain #23 Channel Improvements	3/9/2016	81,612	53,103	28,509
SWC	1331	5000	2015-17	Richland Co WRD	Drain #14 Reconstruction	12/9/2016	252,738	145,714	107,024
SE	1334	5000	2017-19	Traill Co WRD	Norway Drain No. 38	3/28/2018	61,917	8,982	52,935
SWC	1486	5000	2015-17	Griggs Co. WRD	Thompson Bridge Outlet No. 4 Project	10/6/2015	621,661	0	621,661
SWC	1520	5000	2015-17	Walsh Co. WRD	Walsh County Drain 30-1	3/29/2017	282,307	175,589	106,718
SWC	1951	5000	2015-17	Maple River WRD	Lynchburg Channel Improvements	7/6/2016	1,131,338	0	1,131,338
SWC	1951	5000	2015-17	Maple River WRD	Lynchburg Channel Improvements	7/6/2016	23,412	0	23,412
SWC	1975	5000	2015-17	Walsh Co. WRD	Drain 31-1	10/12/2016	111,543	78,964	32,579
SWC	1978	5000	2015-17	Richland-Sargent Joint WRD	RS Legal Drain #1 Extension & Channel Improvement	3/29/2017	378,000	0	378,000
SWC	1990	5000	2011-13	Mercer Co. WRD	Lake Shore Estates High Flow Diversion Project	3/7/2012	43,821	0	43,821
SE	2016	5000	2015-17	Pembina Co. WRD	Establishment of Pembina County Drain No. 80	4/10/2017	74,965	39,404	35,561
SWC	2049	5000	2015-17	Grand Forks Co. WRD	Grand Forks Legal Drain No. 58	3/29/2017	1,481,850	0	1,481,850
SWC	2068	5000	2015-17	Traill Co. WRD	Stavanger-Belmont Drain No. 52 Channel Impr	10/12/2016	414,652	294,513	120,139
SWC	2080	5000	2015-17	Walsh Co. WRD	Sam Berg Coulee Drain	10/12/2016	182,775	82,374	100,401
SWC	2081	5000	2015-17	Walsh Co. WRD	Drain #70	10/12/2016	562,429	470,656	91,773
SWC	2087	5000	2015-17	Walsh Co. WRD	Drain #87/McLeod Drain	3/29/2017	5,273,586	743,342	4,530,244
SWC	2088	5000	2015-17	Pembina Co. WRD	Drain No. 79	12/9/2016	875,428	700,907	174,521
SWC	2108	5000	2015-17	Walsh Co. WRD	Walsh Co Drain #22	6/22/2017	266,086	37,641	228,445
SE	2112	5000	2017-19	Pembina Co. WRD	Pembina Co Drain #81	7/30/2017	56,000	0	56,000
SE	2093/1427	5000	2015-17	Bottineau Co. WRD	Moen Legal Drain	9/6/2016	18,542	0	18,542
Snagging & Clearing Projects:									
SE	662	5000	2015-17	Walsh Co. WRD	Park River Snagging & Clearing	2/17/2017	51,435	19,580	31,855
SE	1934	5000	2015-17	Traill Co. WRD	Elm River Snagging & Clearing	6/21/2017	47,500	19,803	27,697
SE	2095	5000	2015-17	Nelson Co WRD	Sheyenne River Snagging & Clearing	4/10/2017	19,700	0	19,700
SE	2110	5000	2015-17	Ward Co. WRD	Meadowbrook Snagging & Clearing	6/21/2017	33,000	0	33,000

TOTAL

17,194,907 3,832,503 13,362,404

SWC Board Approved to Continue

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COMPLETED WATER CONVEYANCE

Approved SWC		Dept	Approved		Project	Approved Date	Total Approved	Total Payments	Aug-18
By	No		Biennium	Sponsor					Balance
SWC	568	5000	2013-15	Southeast Cass WRD	Sheyenne River Reaches Snagging & Clearing Project	12/5/2014	10,312	10,312	0
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches II	12/11/2015	27,905	2,451	25,454
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches I	12/11/2015	73,902	0	73,902
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches III	12/11/2015	87,035	0	87,035
SE	571	5000	2013-15	Oak Creek WRD	Oak Creek Snagging & Clearing Project	3/30/2015	1,107	0	1,107
SWC	710	5000	2015-17	Maple River WRD	Upper Swan Creek Channel Improvement Project	10/6/2015	62,061	33,484	28,577
SWC	1176	5000	2015-17	Richland Co. WRD	Legal Drain #2 Reconstruction/Extension Project	3/9/2016	224,231	33,758	190,473
SWC	1179	5000	2015-17	Richland Co. WRD	Legal Drain #5 (Lateral 27) Reconstruction	3/9/2016	180,353	10,937	169,416
SWC	1231	5000	2015-17	Traill Co. WRD	Carson Drain No. 10 Channel Improvements	10/12/2016	141,322	110,912	30,410
SWC	1227	5000	2011-13	Traill Co. WRD	Mergenthal Drain No. 5 Reconstruction	9/15/2014	12,225	0	12,225
SWC	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement	7/6/2016	2,599	2,599	0
SWC	1977	5000	2011-13	Dickey-Sargent Co WRD	Jackson Township Improvement Dist. #1	5/20/2015	447,653	106,287	341,366
SE	1978	5000	2015-17	Richland-Sargent Joint W	RS Legal Dam #1 - Pre-Construction Engineering	10/24/2016	13,680	13,680	0
SWC	2042	5000	2015-17	Bottineau Co. WRD	Haas Coulee Legal Drain Phase II	6/22/2017	86,361	86,361	0
SWC	2062	5000	2015-17	Traill Co. WRD	Traill Co. Drain #64	7/6/2016	19,549	13,729	5,820
SWC	2074	5000	2015-17	City of Wahpeton	Toe Drain & Encroachment Project	7/6/2016	1,125,482	1,125,482	0
SE	2078	5000	2017-19	Southeast Cass WRD	Raymond-Mapleton Township Imp Dist #76	7/20/2017	3,043	3,043	0
SWC	1523	5000	2015-17	Ward Co. WRD	Robinwood Bank Stabilization Project	10/6/2015	98,648	18,238	80,410
SWC	1991	5000	2013-15	City of Lisbon	Sheyenne Riverbank Stabilization Project	9/15/2014	47,768	0	47,768
SE	2058	5000	2015-17	City of Grafton	Grafton Debris Removal Plan	4/10/2017	8,177	8,170	7
SNAGGING & CLEARING PROJECTS									
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches I,II,III	12/9/2016	150,073	150,073	0
SE	1287	5000	2013-15	McHenry Co. WRD	Souris River Snagging & Clearing Project	2/3/2015	10,500	0	10,500
SE	1667	5000	2015-17	Traill Co. WRD	Goose River Snagging & Clearing	6/21/2017	47,500	43,811	3,689
TOTAL							2,881,486	1,773,326	1,108,160

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GENERAL PROJECTS

Approved SWC By	No	Depl	Approved Biennium	Sponsor	Project	Approved Date	Total Approved	Total Payments	Aug-18 Balance
Hydrologic Investigations:									
SE	1400	3000	2015-17	Fireside Office Solutions	Document Conversion (Water Permit Scanning)	3/28/2018	21,125	19,899	1,226
SWC	2041	3000	2017-19	USGS	Stream Gage Joint Funding Agreement	12/8/2017	553,790	415,343	138,448
Subtotal Hydrologic Investigations							574,915	435,241	139,674
Devils Lake Basin Development:									
SWC	416-10	4700	2015-17	Operations	Devils Lake Outlet Operations	3/9/2016	10,027,973	4,105,087	5,922,885
SE	416-01	5000	2017-19	Devils Lake Basin Joint WRB	Board Manager	6/14/2017	60,000	0	60,000
Subtotal Devils Lake Basin Development							10,087,973	4,105,087	5,982,885
General Water Management:									
SWC	160	5000	2017-19	McLean Co WRD	Painted Woods Lake Flood Damage Reduction & Habitat	8/9/2018	284,768	0	284,768
SE	274	5000	2015-17	City of Neche	Neche Levee Certification Project	3/21/2016	54,000	0	54,000
SE	390	5000	2015-17	Logan County WRD	Beaver Lake Dam Rehabilitation Feasibility Study	6/8/2016	16,076	0	16,076
SE	394	5000	2015-17	Golden Valley Co WRD	Odland Dam Rehabilitation Feasibility Study	10/13/2016	13,220	12,716	504
SWC	399	5000	2017-19	Barnes Co WRD	Kathryn Dam Project	8/9/2018	754,875	0	754,875
SE	420	5000	2015-17	Hettinger Park Board	Mirror Lake Dam Emergency Action Plan	12/2/2016	24,400	12,827	11,573
SE	460	5000	2015-17	Griggs Co. WRD	Ueland Dam Rehabilitation Feasibility Study	5/20/2016	17,500	0	17,500
SE	477	5000	2015-17	Valley City	Mill Dam Rehabilitation Feasibility Study	6/8/2016	15,073	12,136	2,937
SE	494	5000	2015-17	Nelson Co. WRD	McVillie Dam Emergency Action Plan	5/3/2018	10,000	0	10,000
SE	512	5000	2015-17	Emmons County WRD	Nieuwsma Dam Emergency Action Plan	11/28/2016	7,532	812	6,720
SE	531	5000	2015-17	Benson Co WRD	Bouret Dam Rehabilitation Feasibility Study	10/11/2016	12,118	10,109	2,009
SWC	551	5000	2015-17	McHenry Co. WRD	Buffalo Lodge Lake Outlet	6/22/2017	134,915	73,375	61,540
SE	561	5000	2015-17	City of Tioga	Tioga Dam EAP	5/20/2016	40,000	0	40,000
SE	667	5000	2017-19	Burke Co WRD	Northgate Dam 2 Emergency Action Plan	9/5/2017	26,396	0	26,396
SE	841	5000	2013-15	Maple River WRD	Garsteig Dam Repair Project	1/26/2015	18,661	0	18,661
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-1-A (Brummond-Lubke) Dam EAP	12/18/2015	12,016	0	12,016
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-7 (Nelson) Dam EAP	12/18/2015	12,180	0	12,180
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Emergency Action Plan	9/29/2015	2,212	0	2,212
SWC	980	5000	2015-17	Cass Co. Joint WRD	Rush River Watershed Detention Study	1/7/2016	127,697	8,879	118,818
SWC	980	5000	2013-15	Cass Co. Joint WRD	Swan Creek Watershed Detention Study PHII	3/11/2015	122,666	4,998	117,668
SWC	980	5000	2015-17	Cass Co. Joint WRD	Upper Maple River Watershed Detention Study	1/11/2016	128,039	40,131	87,908
SE	1264	5000	2013-15	Barnes Co WRD	Little Dam Repurposing Feasibility Study	6/17/2015	12,385	0	12,385
SE	1270	5000	2015-17	City of Wilton	Wilton Pond Dredging Recreation Project	12/29/2015	35,707	0	35,707
SWC	1273	5000	2015-17	City of Oakes	James River Bank Stabilization	12/11/2015	262,500	67,457	195,043
SE	1289	5000	2015-17	McKenzie Co. Weed Board	Control of Noxious Weeds on Sovereign Land	4/10/2017	44,010	11,378	32,632
SWC	1296	5000	2015-17	Pembina Co. WRD	Tongue River NRCS Watershed Plan	3/9/2016	140,703	24,055	80,648
SWC	1301	5000	2015-17	Richland Co. WRD	North Branch Antelope Creek NRCS Small Watershed	3/9/2016	113,400	11,447	101,953
SE	1303	5000	2013-15	Sargent Co WRD	Gwinner Dam Improvement Feasibility Study Program	4/17/2015	20,181	0	20,181
SWC	1303	5000	2015-17	Sargent Co WRD	Shorffool Creek Watershed Planning Program	3/9/2016	109,047	0	109,047
SWC	1389	5000	2013-15	Bank of ND	BND AgPace Program	12/13/2013	170,365	120,000	50,365
SE	1396	5000	2017-19	USGS	Water Level Monitoring of Missouri River	9/7/2017	15,000	0	15,000
SWC	1401	5000	2015-17	Pembina Co. WRD	International Boundary Roadway Dike Pembina	7/20/2017	294,528	33,653	260,875
SE	1444	5000	2015-17	City of Pembina	Flood Protection System Certification	4/19/2016	1,657	0	1,657
SE	1453	5000	2015-17	Hettinger County WRD	Karey Dam Rehabilitation Feasibility Study	5/23/2016	6,853	0	6,853
SE	1625	5000	2015-17	Carlson McCain, Inc.	Ordinary High Water Mark Delineations Left Bank of Miss	12/2/2016	2,000	0	2,000
SWC	1851-01	5000	2015-17	ND State Water Commission	Drought Disaster Livestock Water Supply Assistance	2/8/2018	2,025,000	1,092,893	932,107
SWC	1859	5000	2017-15	ND Dept of Health	NPS Pollution	8/23/2017	200,000	91,955	108,045
SWC	1968	5000	2015-17	Garrison Diversion	MM 15 Irrigation Project	3/29/2017	321,781	228,166	93,615
SWC	1968	5000	2015-17	Garrison Diversion	MM 42L Irrigation Project	8/23/2017	937,207	343,469	593,738
SWC	2050-68	5000	2017-19	Valley City	Valley City Membrane Replacement Project	2/8/2018	586,350	0	586,350
SE	2055	5000	2015-17	Red River Joint Water Resource District	Lower Red Basin Regional Detention Study	7/17/2015	45,500	0	45,500
SWC	2059	5000	2015-17	Park River Joint WRD	North Branch Park River NRCS Watershed Study	10/6/2015	81,200	0	81,200
SWC	2060	5000	2015-17	Walsh Co. WRD	Forest River Watershed Study	4/10/2017	154,012	0	154,012
SWC	2065	5000	2015-17	Cass Co. Joint WRD	Lake Bertha Flood Control Project No. 75	3/9/2016	201,350	138,470	62,880
SWC	2066	5000	2015-17	Sheyenne-Maple Flood Control Dist #1	Mitigation Improv	3/9/2016	169,201	0	169,201
SE	2070	5000	2015-17	Garrison Diversion Conservancy Dist	Mile Marker 42 Irrigation Project	5/20/2016	29,741	0	29,741
SE	2071	5000	2015-17	Foster County WRD	Alkali Lake High Water Feasibility Study	4/19/2016	4,830	0	4,830
SE	2072	5000	2015-17	Barnes Co WRD	Ten Mile Lake Flood Risk Reduction Project	6/8/2016	36,812	0	36,812
SWC	2074	5000	2015-17	City of Wahpeton	Flood Control - Levee Certification	7/6/2016	247,500	0	247,500
SWC	2074	5000	2015-17	City of Wahpeton	Breakout Easements	7/6/2016	265,000	0	265,000
SWC	2075	5000	2015-17	Ward Co. WRD	Second Larson Coulee Detention Pond	7/6/2016	602,307	0	602,307
SWC	2083	5000	2015-17	Pembina Co. WRD	Herzog Dam Gate & Catwalk Retrofit - Construction	10/12/2016	114,632	809	113,823
SE	2085	5000	2015-17	Adams Co WRD	Orange Dam Rehabilitation Feasibility Study	10/13/2016	10,770	1,930	8,840
SE	2089	5000	2015-17	Maple River WRD	Tower Township Improvement District No. 77 Study	12/19/2016	28,175	11,717	16,458
SE	2090	5000	2015-17	International Water Institute	River Watch Program	1/12/2017	24,150	11,944	12,206
SE	2090-02	5000	2017-19	International Water Institute	River of Dreams Program	6/6/2018	23,275	0	23,275
SWC	2096	5000	2015-17	Southeast Cass WRD	Sheyenne-Maple Flood Control Dist #2 Improvements	3/29/2017	1,035,358	43,943	991,416
SE	2099	5000	2017-19	City of Hunter	Hunter Dam Emergency Action Plan	2/22/2018	46,108	42,008	4,100
SWC	2107-01	5000	2015-17	City of Minot	Levee Repair & Bank Stabilization Project	6/14/2018	581,476	427,533	153,943
SWC	2107-02	5000	2017-19	City of Minot	Outfall Pipe Rehabilitation Project	6/14/2018	368,778	0	368,778
SE	2109	5000	2017-19	Logan County WRD	McKenna Lake Feasibility Study	6/21/2017	2,247	0	2,247
SE	2109	5000	2017-19	Logan County WRD	McKenna Lake Hydrologic Study	9/12/2018	72,167	0	72,167
SWC	2123	5000	2017-19	Geotech, Inc.	Airborne Electromagnetic (AEM) 2018	8/9/2018	425,000	0	425,000
SE	1396-01	5000	2013-15	Trout, Raley, Montano, Witler, & Freeman	Missouri River Recovery Program	11/17/2015	46,785	275	46,510
SE	1878-02	5000	2015-17	Maple-Steele Joint WRD	Upper Maple River Dam EAP	5/20/2016	12,800	0	12,800
SE	AOC/IRA	5000	2017-19	ND Irrigation Association	Water Irrigation Funding	10/3/2017	75,000	75,000	0
SWC	PS/IRR/LOW	5000	2017-19	Lower Yellowstone Irrigation District #2	Lateral W Irrigation Project	6/14/2018	692,500	0	692,500
SE	AOC/WEF	5000	2017-19	ND Water Education Foundation	ND Water Magazine	8/2/2017	26,000	13,000	13,000
SWC	AOC/RRC	5000	2017-19	Red River Basin Commission	Red River Basin Commission Contractor	6/22/2017	200,000	100,000	100,000
SWC	AOC/ASS	5000	2017-19	Assiniboine River Basin Initiative	ARBI's Outreach Efforts	6/22/2017	100,000	50,000	50,000
SE	PS/WRD/UPP	5000	2017-19	Upper Sheyenne River Joint WRB	USRJWB Operational Costs	6/20/2017	6,000	1,082	4,918
SE	PS/WRD/MRJ	5000	2017-19	Missouri River Joint WRB	MRRIC Terry Fleck	6/7/2017	45,000	18,140	26,860
SE	PS/WRD/MRJ	5000	2017-19	Missouri River Joint WRB	Board Operational Costs	6/7/2017	10,000	4,658	5,342
SE	PS/WRD/LOW	5000	2015-17	Lower Heart WRD	Lower Heart Flood Control Study	5/10/2017	21,140	0	21,140
Subtotal General Projects							12,901,832	3,140,964	9,760,868

TOTAL

23,564,719 7,681,292 15,883,427

STATE WATER COMMISSION
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GENERAL PROJECTS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Approved Date	Total Approved	Total Payments	Aug-18 Balance
					SWC Board Approved to Continue				

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COMPLETED GENERAL PROJECTS

						Aug-18			
Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Approved Date	Total Approved	Total Payments	Balance
						<i>Hydrologic Investigations:</i>			
SE	1396	3000	2017-19	USGS	Maintain Gaging Station East of Lisbon Sheyenne River	9/25/2017	10,500	10,500	0
SE	989	3000	2017-19	ND Dept of Health	Water Sampling Testing	9/25/2017	105,500	105,500	0
SWC	2041	3000	2015-17	USGS	Stream Gage Joint Funding Agreement	10/12/2016	136,028	136,028	0
Subtotal Hydrologic Investigations							252,028	252,028	0
SWC	322	5000	2009-11	ND Water Education Foun	ND Water: A Century of Challenge	2/22/2010	36,800	35,000	1,800
SWC	346	5000	2015-17	Williams County WRD	Epping Dam Spillway Reconstruction	3/29/2017	19,499	19,439	60
SWC	347	5000	2009-11	City of Velva	City of Velva's Flood Control Levee System Certification	3/28/2011	32,497	32,497	0
SE	399	5000	2013-15	Barnes Co WRD	Kathryn Dam Feasibility Study	9/19/2014	12,742	7,061	5,681
SE	479	5000	2017-19	Morton Co Parks & Recre	Fish Creek Dam Rehabilitation	10/4/2017	62,970	62,970	0
SE	1296	5000	2013-15	Pembina Co. WRD	Bathgate-Hamilton & Carlisle Watershed Study	10/17/2013	6,726	6,726	0
SE	1303	5000	2015-17	Sargent Co WRD	Gwinner Dam Breach Project	3/21/2018	44,364	42,673	1,691
SE	1403	5000	2017-19	NDSU	ND Water Resource Institute grant student stipends	1/9/2018	25,000	25,000	0
SE	1418	5000	2015-17	City of Bisbee	Big coulee Dam EAP	5/10/2017	11,320	11,095	225
SWC	1638	5000	2009-11	Mutiple	Red River Basin Non-NRCS Rural/Farmstead Ring Dike Progr.	8/23/2009	177,864	0	177,864
SE	1808	5000	2015-17	Steele Co WRD	Beaver Creek Dam Safety Inspection	5/23/2016	2,625	2,625	0
SWC	1968	5000	2013-15	Garrison Diversion	McClusky Canal Mile Marker 10 & 49 Irrigation Project	3/17/2014	51,614	0	51,614
SE	1974	5000	2015-17	USGS	Installation of 5 Rapid Deployment Gages in the Mouse River	3/23/2017	23,200	23,200	0
SE	1974	5000	2015-17	USGS	Regulated Streamflow Frequency for the Upper Souris River B:	12/16/2016	12,367	12,367	0
HB1009	1986	5000	2017-19	ND Dept Agriculture	Wildlife Services 17-201	8/22/2017	125,000	125,000	0
SE	2069	5000	2015-17	Center Township	Wild Rice River Bank Stabilization	4/19/2016	954	954	0
SE	2076	5000	2015-17	Elm River Joint WRD	Elm River Dam #1 Modification Study	7/6/2016	9,503	9,503	0
SE	2094	5000	2015-17	McLean Co WRD	Lower Buffalo Creek Flood Management Feasibility	6/7/2017	7,539	7,534	5
SE	2079-01	5000	2015-17	City of Williston	West Williston Flood Control	10/24/2016	39,900	39,900	0
SE	2114	5000	2017-19	HDR Engineering	LCCA & EA Guidance Workshop	5/17/2018	9,804	9,804	0
HB1020	2114	5000	2017-19	HDR Engineering	Economic Analysis-Flood Control & Conveyance Projects	12/28/2017	74,093	74,093	0
HB1020	2119	5000	2017-19	HDR Engineering	Life Cycle Cost Analysis Guidelines & Process Development	12/28/2017	59,263	59,263	0
SE	AOC/MIS	5000	2017-19	Missouri River Advisory C	MRAC Startup Funding	8/3/2017	2,000	2,000	0
SE	AOC/WRD	5000	2015-17	ND Water Resource Distr	ND Water Managers Handbook	6/21/2017	24,750	24,750	0
SE	AOC/WEF/TO	5000	2017-19	ND Water Education Foun	Summer Water Tours	4/30/2018	2,500	2,500	0
SE	NDAWN	5000	2017-19	NDSU	NDAWN CENTER	3/13/2018	1,500	1,500	0
SWC	PS/WRD/ELM	5000	2013-15	Elm River Joint WRD	Dam #3 Safety Improvements Project	9/15/2014	5,672	0	5,672
Subtotal General Projects							882,065	637,463	244,612
TOTAL							1,134,093	889,481	244,612

Water Supply Bucket 2017-2019

Bucket Total		\$120,125,000
Obligated This Biennium	Grand Forks - Water Treatment Plant	\$30,000,000
	Lake Agassiz Water Authority - Red River Valley Water Supply	\$17,000,000
	Lincoln - Water Supply Main	\$1,130,000
	Mandan - Sunset Reservoir Transmission Line	\$3,135,000
	Mercer - McLean Sheridan Connection	\$166,950
	Minot - Northwest Area Water Supply	\$10,000,000
	New Town - Water Tower	\$1,040,000
	State Water Commission - Southwest Pipeline Project	\$6,300,000
	West Fargo - Brooks Harbor Water Tower	\$1,950,000
	West Fargo - North Loop Connection	\$510,000
	West Fargo - West Loop Connection	\$1,110,000
	Western Area Water Supply - Phase 5	\$20,000,000
	Williston - US Highway 2 Water Main	\$434,400
	Williston - 9th Ave E Water Main	\$246,000
	Williston - 18th St Water Main	\$2,090,000
	Wing - Water Tower	\$72,000
Remaining Balance		\$24,940,650
Money Turned Back		\$767,521
Remaining Balance		\$25,708,171
October 2018 Agenda	New Town - Water Tower	\$900,000
	State Water Commission - Northwest Area Water Supply	\$4,600,000
	State Water Commission - Southwest Pipeline Project	\$7,200,000
Remaining Balance		\$13,008,171
Planned Yet This Biennium	Lake Agassiz Water Authority - Red River Valley Water Supply	\$13,000,000
Remaining Balance		\$8,171

Rural Water Supply Bucket 2017-2019		
Bucket Total		\$27,000,000
Obligated This Biennium	East Central Regional Water District - Grand Forks System	\$4,150,000
	East Central Regional Water District - Traill System	\$1,396,880
	East Central Regional Water District - Agassiz WUD	\$232,795
	Greater Ramsey Water District - Devils Lake Regionalization	\$599,000
	North Prairie Rural Water District - Mountrail County	\$6,516,000
	Southeast Water User District - Expansion System Wide	\$2,749,000
	Stutsman Rural Water District - Phase 6 Pettibone	\$2,100,000
	Walsh Rural Water District - System Improvements	\$1,300,000
	North Prairie Rural Water District - Silver Spring Surrey	\$107,430
	North Prairie Rural Water District - Reservoir 9	\$1,114,620
	Cass Rural Water User District - Horace Tank	\$91,000
	McLean-Sheridan Rural Water District - Turtle Lake Tower	\$2,378,450
	Tri-County Rural Water District - McVile Connection	\$2,803,250
Remaining Balance		\$1,461,575
Money Turned Back		\$914,275
Remaining Balance		\$2,375,850
October 2018 Agenda	Cass Rural Water User District - Horace Tank	\$1,755,000
Remaining Balance		\$620,850
Planned Yet This Biennium	East Central Regional Water District - Larimore	\$513,750
Remaining Balance		\$107,100

Flood Control Bucket 2017-2019		
Bucket Total		\$136,000,000
Obligated This Biennium	Mouse River Flood Control	\$63,907,784
	Valley City Flood Control	\$2,171,925
	*Pembina Co. WRD	\$56,000
	*SE Cass WRD	\$3,043
	*Bottineau Co. WRD	\$41,427
	*Traill Co. WRD	\$61,917
	Mapleton Re-Certification	\$213,670
	Lower Heart Flood Control	\$280,000
	Davenport Flood Risk Reduction	\$35,000
	Lake McKenna	\$72,167
Michigan Spillway Flood Assessment	\$42,053	
Remaining Balance		\$69,115,014
Money Turned Back		\$1,117,229
Remaining Balance		\$70,232,243
October Agenda	Valley City Flood Control	\$1,786,179
	City of Minot SWIF	\$387,433
	Sheldon Subdivision Levee	\$370,200
	*Walsh County Drain 30-2	\$328,042
Remaining Balance		\$67,360,389
Planned Yet This Biennium	Fargo Flood Control	\$66,500,000
	*Richland County Drain 7	\$275,000
	*Bottineau County Bauman Drain	\$416,250
	City of Belfield	\$27,000
Remaining Balance		\$142,139
Not In Water Plan	City of Davenport	\$2,083,600

* Conveyance Projects

General Water Management Bucket 2017-2019

Bucket Total		\$15,750,000
Obligated This Biennium	Garrison Diversion Unit, Mile 42 Irrigation	\$937,207
	Drought Disaster Livestock Water Supply	\$500,000
	Drought Disaster Livestock Water Supply	\$775,000
	Drought Disaster Livestock Water Supply	\$500,000
	Valley City Water Treatment Plant	\$586,350
	USGS Cooperative Hydrologic Monitoring	\$553,790
	Wildlife Services - ND Dept. of Agriculture	\$125,000
	Yellowstone Irrigation District	\$692,500
	NPS Pollution – Dept. of Health	\$200,000
	Red River Basin Commission	\$200,000
	Painted Woodes Lake Flood Damage Reduction	\$284,768
	Kathryn Dam	\$754,875
	AEM	\$425,000
	Assiniboine Outreach	\$100,000
	Various State Engineer Approvals	\$804,686
Remaining Balance		\$8,310,824
Money Turned Back		\$244,612
Remaining Balance		\$8,555,436
October Agenda	*Harmon Lake	\$102,873
	Matacjek Dam	\$267,150
	Brummond-Lubke Dam	\$317,111
	PMP Update	\$600,000
Remaining Balance		\$7,268,302
Planned Yet This Biennium	Devils Lake Outlet Operations	\$5,000,000
Remaining Balance		\$2,268,302

Proposed

A. WATER SUPPLY

- 1 RURAL AND MUNICIPAL WATER SUPPLY PROJECTS.** The State Water Commission supports water supply efforts. The local sponsor may apply for funding, and the application will be reviewed to determine project priority. Debt per capita, water rates and financial need may be considered by the Commission when determining an appropriate cost share percentage. The Commission reserves flexibility to adjust percentages on a case by case basis, but generally:

Up to 75% cost-share may be provided for:

- Rural Water System Expansions and Improvements
- Connection of communities to a regional system
- Improvements required to meet primary drinking water standards

Up to 60% cost-share may be provided for:

- Municipal Water Supply Expansions and Improvements
- Connection of new rural water customers located within extraterritorial areas of a municipality

Water Depots for industrial use receiving water from facilities constructed using State Water Commission funding or loans have the following additional requirements:

- a) Domestic water supply has priority over industrial water supply in times of shortage. This must be explicit in the water service contracts with industrial users.
- b) If **industrial** water service will be contracted, public notice of availability of water service contracts is required when the depot becomes operational.
- c) **Public access to water on a non-contracted basis must be provided at all depots.**

- 2 FEDERAL MUNICIPAL, RURAL, AND INDUSTRIAL WATER SUPPLY PROGRAM.** The Municipal, Rural, and Industrial Water Supply Program, which uses federal funds, is administered according to North Dakota Administrative Code Article 89-12.
- 3 DROUGHT DISASTER LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM.** This program is to provide assistance with water supply for livestock impacted during drought declarations and is administered according to North Dakota Administrative Code Article 89-11.



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (8/2018)

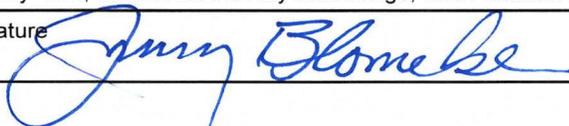
APPENDIX C

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Horace Area Elevated Tank		
Sponsor(s) Cass Rural Water District		
County Cass	City	Township/Range/Section 138-49-17
Description Of Request <input type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Lack of capacity in the system may limit both residential and commercial development in the area.		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program <input type="checkbox"/> Flood Control <input type="checkbox"/> Multi-Purpose <input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Dam Safety/EAP <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition <input type="checkbox"/> Irrigation <input type="checkbox"/> Water Retention <input type="checkbox"/> Rural Flood Control <input checked="" type="checkbox"/> Other		
Are Connections Of New Rural Customers Located Within The Extra-Territorial Jurisdiction Of Municipality? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Jurisdictions/Stakeholders Involved Rural Cass County, Town of Horace and West Fargo		
Description Of Problem Or Need And How Project Addresses That Problem Or Need The corridor along Cass County Road 17 between West Fargo and Horace has experienced rapid growth from residential and commercial development. The project will provide the necessary storage capacity for Cass Rural Water District to meet the increased demand in this area. Without the project CRWD will not have the storage capacity necessary to serve the area as growth continues. CRWD is currently reach the capacity of the existing infrastructure. In coordination with the City of West Fargo the tank will be incorporated in to their future growth plans. The tank will be located at the site of the new middle school and high school planned for the West Fargo School District.		
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The facilities improvement report is under development. The tank was included in a study done for the cities of Fargo and West Fargo and will be built to be incorporated into their future growth plans.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)?				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2017-2019 7/1/17-6/30/19	2019-2021 7/1/19-6/30/21	Beyond 7/1/21
Federal	\$	\$	\$	\$
State Water Commission	\$	\$	\$ 1,755,000.00	\$
Other State	\$	\$	\$	\$
Local	\$	\$	\$ 1,820,000.00	\$
Total	\$ 0.00	\$ 0.00	\$ 3,575,000.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied ND Department of Health DWSRF Loan Program				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Design - Fall/Winter 2018, Bid - Winter/Spring 2019, Construction 2019-2020				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Jerry Blomeke, General Manager			Date August 28, 2018	
Address 131 Maple Street		City Kindred	State ND	ZIP Code 58051
Telephone Number 701-428-3139		Engineer Telephone Number 701-258-1110		
Sponsor Email jerry.blomeke@cassruralwaterdistrict.com		Engineer Email bryan.ziegler@bartwest.com		
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 8/28/18	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

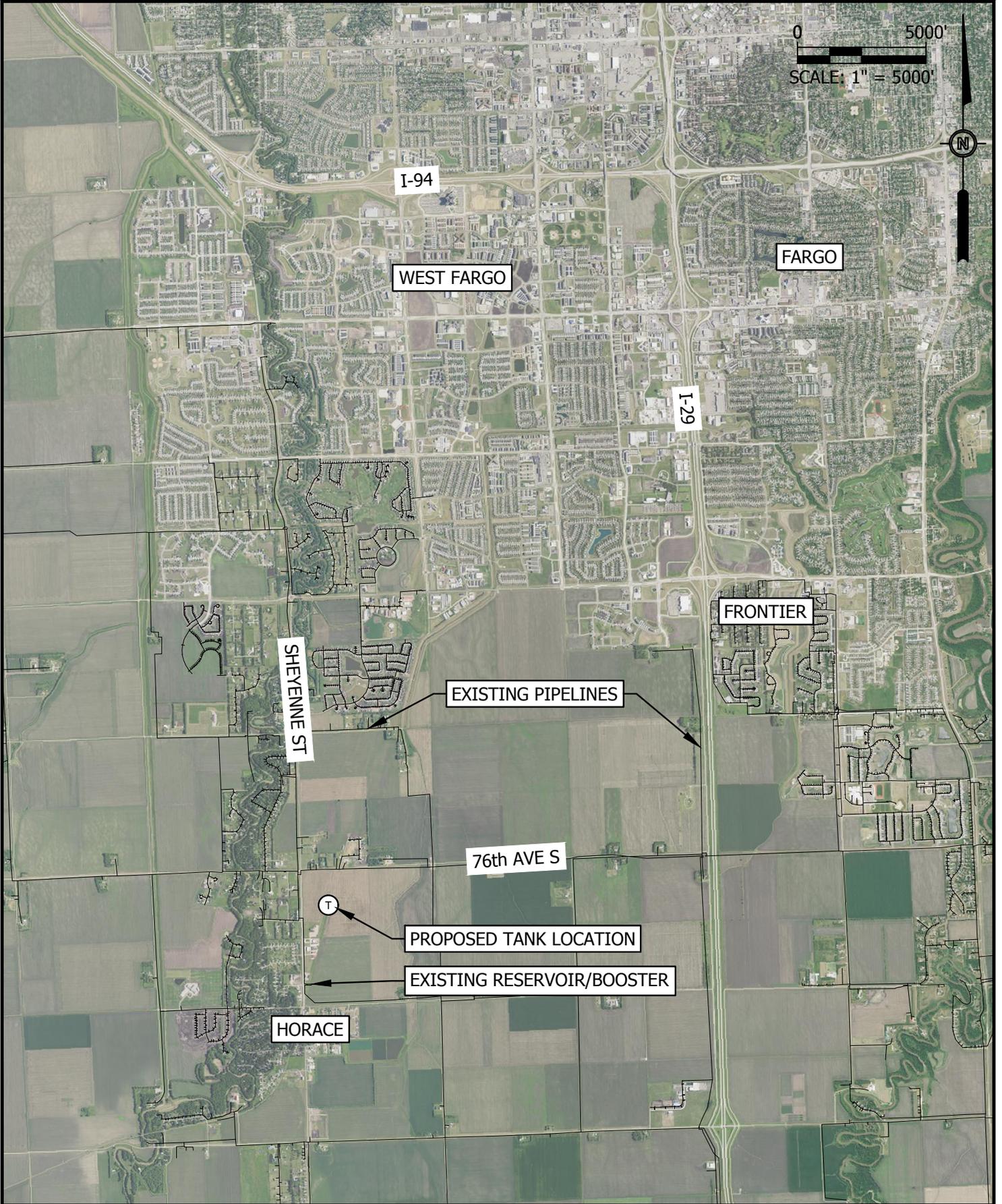
**Construction Cost Estimate
Cass Rural Water Users
Horace Area Elevated Tower**

1M gallon Elevated Tank			
Description	Quantity	Unit Price	Extension
Mobilization	1	\$ 50,000	\$50,000
Access Road, Site Work, Fencing, Outlet Structure	1	\$ 75,000	\$75,000
Inlet/Outlet Piping	1	\$ 100,000	\$100,000
Tank Foundation & Subbase Preparation (Pile Foundatio	1	\$ 675,000	\$675,000
1M Gallon Elevated Steel Tank	1	\$ 1,575,000	\$1,575,000
Coating System	1	\$ 290,000	\$290,000
Control Room	1	\$ 90,000	\$90,000
Tank Cathodic Protection System	1	\$ 25,000	\$25,000
Tank Mixer	1	\$ 30,000	\$30,000
Testing, Cleaning, and Disinfection	1	\$ 5,000	\$5,000
Subtotal Tank Costs			\$2,915,000
Adminstration/Legal		ineligible	\$15,000
Land Acquisition		ineligible	\$50,000
Archeology			\$15,000
Construction Phase Geotechnical Engineering/Testing			\$115,000
Construction Phase Engineering			\$465,000
Total Tank Construction Cost			\$3,575,000

NOTE:

Eligible

\$3,510,000



Drawing Name: F:\Proj\3000\3057\068\AutoCad\EXHIBITS\3057.068 TANK LOCATION EXHIBIT.dwg Layout Name: LOCATION EXHIBIT Plotted on: 9/13/2018 2:06:17 PM

Bartlett & West

www.bartlettwest.com

**CASS RURAL WATER USERS
ELEVATED TANK
LOCATION MAP**

PROJ NO: 3057.068
DATE: 9/13/2018

SHEET NUMBER
1
OF 1

APPENDIX D



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (8/2018)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Northeast Area Master Plan				
Sponsor(s) Northeast Regional Water District/East Central Regional Water District				
County Pembina, Cavalier, Ramsey, Nelson, Walsh		City Devils Lake, Hillsboro, Mayville, GF, Larimore		Township/Range/Section
Description Of Request <input checked="" type="checkbox"/> New <input checked="" type="checkbox"/> Updated (previously submitted)				
Specific Needs Addressed By The Project, Program, Or Study Provide a long-term regional water supply master plan for municipalities and water districts within the project area.				
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input checked="" type="checkbox"/> Feasibility <input type="checkbox"/> Other				
If Project/Program				
<input type="checkbox"/> Flood Control <input type="checkbox"/> Multi-Purpose <input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Dam Safety/EAP <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition <input type="checkbox"/> Irrigation <input type="checkbox"/> Water Retention <input type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other				
Are Connections Of New Rural Customers Located Within The Extra-Territorial Jurisdiction Of Municipality? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Jurisdictions/Stakeholders Involved Devils Lake, Walsh RWD, Agassiz WUD, Tri-County WUD, Hillsboro, Mayville, Larimore, Northeast RWD, East CRWD				
Description Of Problem Or Need And How Project Addresses That Problem Or Need Problem - Lack of financial resources and permitted water resources. Lack of Information: Presently, both RRVWSP solutions (Beach Ridge and Regional Approach) are focused on capital costs through raw water supply, but lack end user life cycle costs analysis (Operations & Maintenance and finished water costs). Lack of Planning - As it relates to the northeast area (see map), there is no common master plan for potential regionalization or consolidation between municipalities and rural water districts. Goal - Confidence in best use of State's limited resources in alignment with state policies. A roadmap for NE area to begin regionalization and consolidation through collaboration and proactive decision making. Sufficient information for state and local entities on long-term costs for RRVWSP or local area solution(s). How Do We Get There - Create Northeast area regional masterplan. inventory existing water supply and treatment infrastructure and review CIP plans within project area. Further define RRVWSP options for life cycle cost and compare to local alternative ground water solution. Secure effective cost share between State and local entities.				
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone NRWD/ECRWD presented the study concept to the Lake Agassiz Water Authority (LAWA), a motion was passed by LAWA in support of the Northeast Area Master Plan Report. A presentation to all stakeholders was also conducted, with support from all. +				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? N/A				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2017-2019 7/1/17-6/30/19	2019-2021 7/1/19-6/30/21	Beyond 7/1/21
Federal	\$	\$	\$	\$
State Water Commission	\$	\$ 206,250.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$	\$ 68,750.00	\$	\$
Total	\$ 0.00	\$ 275,000.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied N/A				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status The study would begin shortly after securing grant funds. Efforts would be taken to have the study completed prior to LAWA requesting participation in the RRWSP, which would provide stakeholders with the necessary information to make a decision.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Gordon Johnson/Neil Breidenbach			Date 08/21/18	
Address 13532 Hwy 5 W		City Cavalier	State ND	ZIP Code 58220
Telephone Number 701-265-8503		Engineer Telephone Number 701-746-8087		
Sponsor Email Nvh20@polarcomm.com / Neilbre@yahoo.com		Engineer Email Geoffrey.slick@ae2s.com		
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature <i>Gordon Johnson, Gen. Manager</i>			Date 9/13/2018	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

NORTHEAST AREA REGIONAL WATER MASTER PLAN

THE PROBLEM

- **LACK OF RESOURCES.** Water and financial resources are limited.
- **LACK OF INFORMATION.** Presently, both RRVWSP solutions (beach ridge and regional approach) are focused on capital costs through raw water supply but lack end user life cycle cost analysis (Operations and Maintenance and finished water costs) for pipeline extension users.
- **LACK OF PLANNING.** As it relates to the Northeast Area (defined below), there is no common master plan for potential regionalization or consolidation between municipalities and rural water districts.
- **GROUNDWATER VS SURFACE WATER BARRIER.** Entities considering source water changes face water quality dynamics, regulatory considerations, and required infrastructure improvements.

THE GOAL

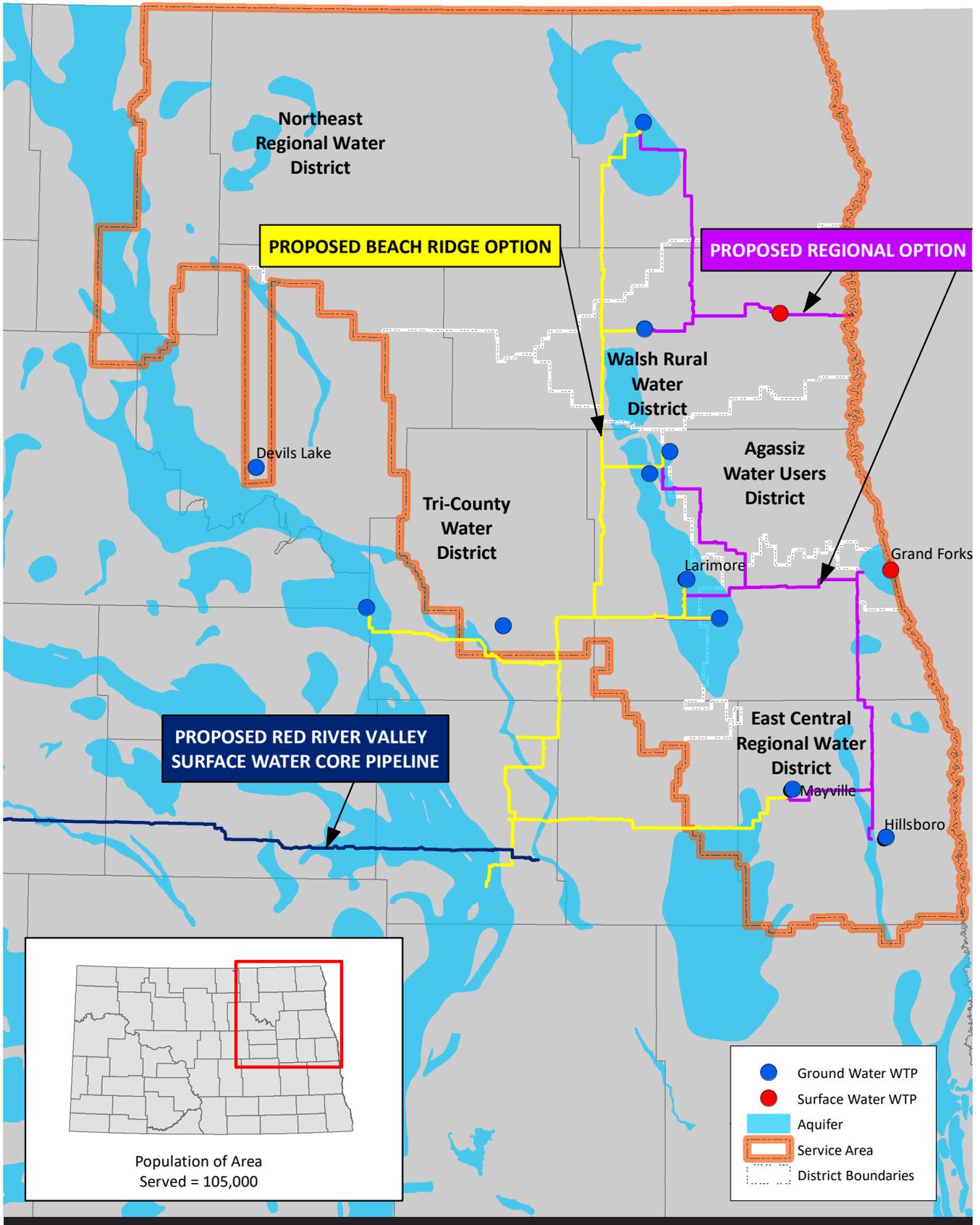
- Confidence in best use of State’s limited resources in alignment with state policies.
- A roadmap for NE Area to begin and continue regionalization and consolidation through collaboration and proactive decision making.
- Sufficient information for State and Local entities on long-term RRVWSP or local solution(s).

HOW DO WE GET THERE?

- Create a Northeast Area Water Regional Master Plan
 - Inventory existing water supply and treatment infrastructure and review CIP plans within project area.
 - Further define RRVWSP options for Life Cycle cost.
 - Compare to local alternative groundwater solutions, where applicable.
 - As water supply and treatment infrastructure nears its useful life, this Master Plan will be a tool used to determine the best near and long-term economical water supply solution.
- Secure effective cost share between state and local entities

PROJECT SCHEDULE	TASK	DATE
	SWC Approval	October 2018
	User Input Meetings and Infrastructure Inventory	November 2018
	Data Analysis and Alternative Evaluation	December 2018 - February 2018
	User Input and Selection of Preferred Option	March 2019
	Final Report Complete	March 2019

PARTICIPATING RURAL WATER SYSTEMS & MUNICIPALITIES



**Northwest Area Water Supply Project
Remaining Project Features - Estimates to Complete**
9/27/18

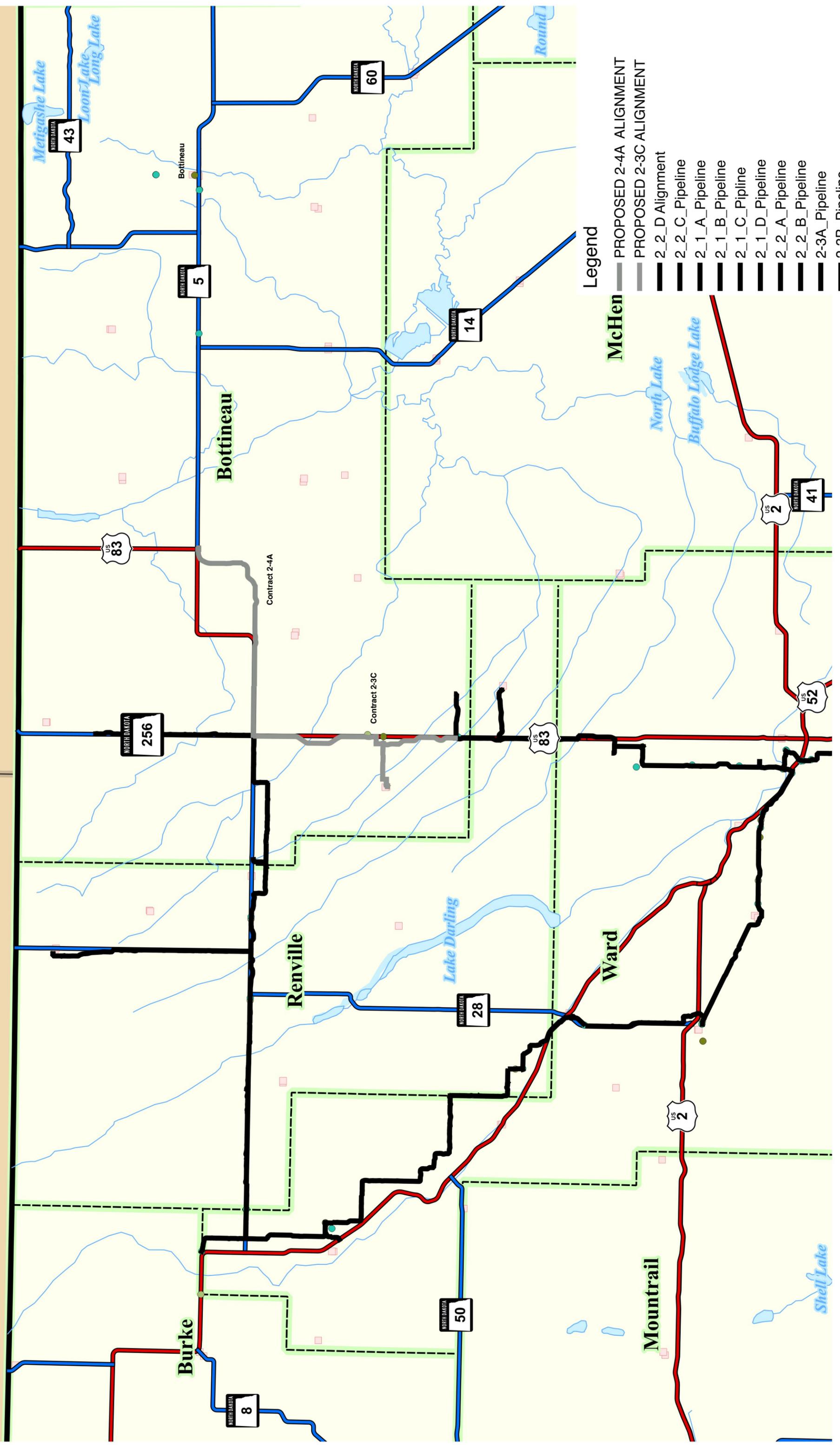
100% or 65%	Proposed Funding		Total	100%	Contract	Description	Purpose	Current Design Estimate	Current Construction Estimate	Current CMS Estimate	Design Year	Construction Year Start	Construction Year Finish	Indexed Design Estimate	Indexed Construction Estimate	Indexed CMS Estimate	Opinion of Probable Project Cost
	Federal	State															
\$ -	\$ 1,449,500	\$ 780,500	\$ 2,230,000	\$ 2,230,000	6-1A	Snake Creek Pumping Facility Retrofit.	Provide an intake facility for the raw water pipeline	\$ 2,225,100	\$ 13,100,000	\$ 820,000	2018	2020	2021	\$ 2,230,000	\$ 14,440,000.00	\$ 870,000.00	\$ 17,540,000
\$ 4,917,164	\$ -	\$ -	\$ 4,917,164	\$ 4,917,164	7-1D/4-1A	Biota WTP and Pump Station Phase I.	First phase of the Biota Water Treatment Facility	\$ 4,917,164	\$ 45,000,000	\$ 2,250,000	2018	2019	2021	\$ 4,920,000	\$ 47,250,000	\$ 2,320,000	\$ 54,490,000
\$ -	\$ -	\$ -	\$ -	\$ -	7-1E/4-2B	Biota WTP and Pump Station Phase II.	Second phase of the Biota Water Treatment Facility	\$ 2,090,000	\$ 22,000,000	\$ 1,320,000	2021	2023	2025	\$ 2,280,000	\$ 28,080,000	\$ 1,530,000	\$ 31,890,000
\$ -	\$ -	\$ -	\$ -	\$ -	7-1F/4-1C	Biota WTP and Pump Station Phase III.	Third phase of the Biota Water Treatment Facility	\$ 1,615,000	\$ 17,000,000	\$ 1,020,000	2023	2025	2027	\$ 1,870,000	\$ 23,920,000	\$ 1,250,000	\$ 27,040,000
\$ -	\$ 2,158,000	\$ 1,162,000	\$ 3,320,000	\$ 3,320,000	5-2A	South Prairie Control Structure and Reservoir Bypass	Hydraulic control structure located at the continental divide to control pipeline operations	\$ 250,000	\$ 2,500,000	\$ 150,000	2020	2021	2021	\$ 270,000	\$ 2,890,000	\$ 160,000.00	\$ 3,320,000
\$ -	\$ -	\$ -	\$ -	\$ -	5-2B	South Prairie Reservoir	Pre-treated storage reservoir	\$ 700,000	\$ 8,500,000	\$ 580,000	2021	2023	2025	\$ 760,000	\$ 10,850,000	\$ 670,000	\$ 12,280,000
\$ -	\$ 1,755,000	\$ 945,000	\$ 2,700,000	\$ 2,700,000	2-1E	Supply System Evaluation and Initiation	Existing pre-treated pipeline inspection, testing, operational preparation	\$ 1,250,000	\$ 1,125,000	\$ 125,000	2020	2020	2021	\$ 1,330,000	\$ 1,240,000	\$ 130,000	\$ 2,700,000
\$ 8,797,836	\$ 9,909,164	\$ 10,073,000	\$ 28,780,000	\$ 28,780,000	7-1B	Phase II Minot WTP	Softening basin expansion at the Minot Water Treatment plant	\$ -	\$ 27,268,000	\$ 1,507,198	-	2018	2020	\$ -	\$ 27,270,000	\$ 1,510,000	\$ 28,780,000
\$ -	\$ -	\$ -	\$ -	\$ -	7-1C	Phase III Minot WTP	Retrofit of previously existing softening basins, finishing remaining items at plant	\$ 980,000	\$ 7,050,000	\$ 400,000	2021	2022	2024	\$ 1,070,000	\$ 8,570,000	\$ 450,000	\$ 10,090,000
\$ -	\$ -	\$ -	\$ -	\$ -	4-3A/5-3A	Lansford Reservoir/BPS	Main storage and pumping station on finished water line, necessary to bring full service to Bottineau and northern tier.	\$ 1,650,000	\$ 16,125,000	\$ 850,000	2021	2022	2023	\$ 1,800,000	\$ 19,600,000	\$ 960,000	\$ 23,360,000
\$ -	\$ 136,500	\$ 73,500	\$ 210,000	\$ 210,000	4-2D	Inline BPS's	Finished water pipeline booster pump stations	\$ 205,000	\$ 1,310,000	\$ 100,000	2019	2020	2020	\$ 210,000	\$ 1,440,000	\$ 110,000	\$ 1,750,000
\$ -	\$ -	\$ -	\$ -	\$ -	5-4A	Bottineau/ASWUD Pumps and Storage	Finished water storage and pumping to supply design flow to Bottineau area	\$ 535,000	\$ 7,350,000	\$ 550,000	2021	2023	2024	\$ 580,000	\$ 9,380,000	\$ 640,000	\$ 10,600,000
\$ -	\$ 4,537,000	\$ 2,443,000	\$ 6,980,000	\$ 6,980,000	2-3C	Glenburn to Renville Corner Segment	Finished water pipeline necessary to complete system loop and provide	\$ 374,169	\$ 5,950,000	\$ 348,898	2018	2019	2020	\$ 370,000	\$ 6,250,000	\$ 360,000	\$ 6,980,000
\$ -	\$ 4,186,000	\$ 2,254,000	\$ 6,440,000	\$ 6,440,000	2-4A	Westhope and All Seasons System III Segment	Finished water pipeline to provide service to Westhope and better serve All Seasons	\$ 102,910	\$ 5,700,000	\$ 338,397	2018	2019	2020	\$ 100,000	\$ 5,990,000	\$ 350,000	\$ 6,440,000
\$ -	\$ 247,000	\$ 133,000	\$ 380,000	\$ 380,000	2-4B	Westhope to Souris Corner Segment	Finished water pipeline to provide service to Souris	\$ 365,000	\$ 7,250,000	\$ 725,000	2019	2020	2021	\$ 380,000	\$ 7,990,000	\$ 770,000	\$ 9,140,000
\$ -	\$ 325,000	\$ 175,000	\$ 500,000	\$ 500,000	2-4C	Souris Corner to Bottineau and ASWU System I Segment	Finished water pipeline to provide service to Bottineau and All Seasons System I	\$ 490,000	\$ 5,650,000	\$ 560,000	2019	2020	2021	\$ 500,000	\$ 6,230,000	\$ 590,000	\$ 7,320,000
\$ -	\$ 1,500,000	\$ 500,000	\$ 2,000,000	\$ 2,000,000		Other	Ongoing costs: engineering, land, legal, permits, and construction	\$ -	\$ -	\$ -	-	-	-	\$ -	\$ 2,000,000	\$ -	\$ 2,000,000
\$ 13,715,000	\$ 26,203,164	\$ 18,539,000	\$ 58,457,164	\$ 58,457,164	Sub-Total												\$ 254,730,000
\$ -	\$ 918,118	\$ 426,397	\$ 1,344,515	\$ 1,344,515	Contingency												
\$ 13,715,000	\$ 27,121,282	\$ 18,965,397	\$ 59,801,679	\$ 59,801,679	Total												
\$ 11,815,000	\$ 22,500,000	\$ 10,853,500	\$ 45,168,500	\$ 45,168,500	Approved												
\$ (1,900,000)	\$ (4,621,282)	\$ (8,111,897)	\$ (14,633,179)	\$ (14,633,179)	Request												

Gray shaded items are treatment related
 Green shaded items are on the raw water supply system
 Blue shaded items are on the potable distribution system

Bold numbers are under contract/specific authorization, the rest are estimates

SASKATCHEWAN

MANITOBA



POTENTIAL STATE/LOCAL COST-SHARE

SWC COST-SHARE/LOCAL COST-SHARE	
Cost of Master Plan	\$275,000
SWC Cost-Share %	75%
Local Cost-Share %	25%
SWC Cost-Share (\$)	\$206,250
Local Share East Central (\$)	\$37,500
Local Share Northeast (\$)	\$31,250

EAST CENTRAL - PRO-RATA SHARE OF LOCAL STUDY COST			
USER	NOMINATION	TARGET COST-SHARE	POPULATION
City of Grand Forks		\$18,750	57,000
Grand Forks-Traill Water District	3.00	\$7,601	9,700
Traill Rural Water District	1.10	\$2,787	2,800
Tri-County Rural Water	1.00	\$2,534	2,500
Agassiz Water Users District	1.00	\$2,534	3,750
City of Larimore	0.30	\$760	1,300
City of Hillsboro	0.50	\$1,267	1,600
City of Mayville	0.50	\$1,267	1,830
Sub Total	7.40	\$37,500	80,480
NORTHEAST - PRO-RATA SHARE OF LOCAL STUDY COST			
USER	NOMINATION	LOCAL SHARE	POPULATION
Northeast Regional Water District	3.00	\$18,750	12,700
Devils Lake	1.00	\$6,250	7,300
Walsh Rural Water District	1.00	\$6,250	5,500
Sub Total	5.00	\$31,250	25,500
TOTAL	12.4	\$68,750	105,980

As entities' water supply and treatment infrastructure nears its useful life, the Master Plan will be a tool used to determine the best long-term economical water supply solution for ongoing improvements.

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Northeast Area Water Regional Plan Report

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 - 3B – Combine Permits and Supplement with Partners

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- Financial Comparison
- Non-Economic Advantages and Disadvantages for Scenarios
- Timing/Phasing Considerations

7. CONCLUSIONS AND RECOMMENDATIONS



Heart of Lake Sakakawea

City of New Town
P.O. Box 309
New Town, North Dakota 58763
Phone: (701) 627-4812

August 22, 2018

ND State Water Commission
C/O Chairman: Governor Doug Burgum
600 East Boulevard Avenue
Bismarck, ND 58505

RE: New Town Elevated Water Tank – Funding

Dear Chairman Burgum and Commissioners:

On July 18, 2018, four (4) bids were received for the above referenced project as shown in the enclosed bid tabulation and the City of New Town opted to award the following contracts:

- *Contract No. 1 – General Construction to Maguire Iron*
 - *\$2,033,708.72 (Elevated Tank)*
 - *\$191,895.28 (Depot)*
 - *\$403,077.00 (Pipeline)*
 - *\$357,319.00 (PRV)*
 - *30,000.00 (Logo)*
 - *Total = \$3,016,000*

- *Contract No. 2 – Electrical Construction to Muth Electric*
 - *\$159,134.00 (Elevated Tank)*
 - *\$78,556.00 (Depot)*
 - *Total = \$237,690*

- *Total Construction Contracts = \$3,253,690*

Bid prices were higher than anticipated which is mainly attributable to the new steel tariff that did NOT exist when we submitted our preliminary engineering report in 2017.

Back in 2017, the total cost for the tank, pipeline, and logo was estimated to be \$2.06M. Bid prices for these same components in July 2018 are 27% higher.

The State Water Commission has graciously agreed to fund 60% of construction costs and as such we are requesting an increase in funding (potentially from \$1.04M to \$1.95M).

If you have any questions, please do not hesitate to contact me. Also, I can attend the next State Water Commission meeting if you prefer to add this topic to your next agenda and discuss this more in detail.

Sincerely,

Dan Uran
Mayor of New Town, ND

Cc: Deon Stockert, AE2S
Jeffrey Mattern, SWC



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (8/2018)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Expanded Water Storage		
Sponsor(s) City of New Town		
County Mountrail	City New Town	Township/Range/Section
Description Of Request <input type="checkbox"/> New <input checked="" type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Expanded water storage to serve growth areas		
If Study, What Type <input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program <input type="checkbox"/> Flood Control <input type="checkbox"/> Multi-Purpose <input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Dam Safety/EAP <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition <input type="checkbox"/> Irrigation <input type="checkbox"/> Water Retention <input type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other		
Are Connections Of New Rural Customers Located Within The Extra-Territorial Jurisdiction Of Municipality? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Jurisdictions/Stakeholders Involved City of New Town		
Description Of Problem Or Need And How Project Addresses That Problem Or Need In June 2017 the City of New Town submitted a cost share request for a new 250,000 gallon elevated water tank (and pipeline to/from tank). Probable construction costs were estimated to be \$2.06M; however, in 2018 bid prices were impacted by a new steel tariff and the exact same scope increased to \$2.954M. Item quotes for just the steel tank (from numerous tank manufacturers) alone jumped from \$1.125M (pre-tariff) to \$1.8745M (post tariff). City of New Town appreciates State Water Commission funding assistance and is asking additional funding be considered to offset the steel tariff impacts. This would increase the State Funding level an additinal \$900,000 (from 1.04M to \$1.94M).		
Has Feasibility Study Been Completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Final engineering plans/specs were submitted to ND Dept of Health, State Water Commission, and EPA. We have received letter from ND Dept of Health that the plans/specs were reviewed and they had no-comment or other recommendations.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)?				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2017-2019 7/1/17-6/30/19	2019-2021 7/1/19-6/30/21	Beyond 7/1/21
Federal	\$	\$	\$	\$
State Water Commission	\$ 1,940,000.00	\$ 1,743,642.00	\$ 196,358.00	\$
Other State	\$	\$	\$	\$
Local	\$ 1,372,024.00	\$ 1,282,478.00	\$ 89,546.00	\$
Total	\$ 3,312,024.00	\$ 3,026,120.00	\$ 285,904.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied none				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Construction starts in Sept 2018 and will be entirely completed October 2019.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Dan Uran			Date 9/20/2018	
Address PO Box 309		City New Town	State ND	ZIP Code 58763
Telephone Number 701-627-4812		Engineer Telephone Number Deon Stockert 701-225-9636		
Sponsor Email daniel.uran@k12.nd.us		Engineer Email deon.stockert@ae2s.com		
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature <i>Daniel Uran</i>			Date 9/20/2018	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

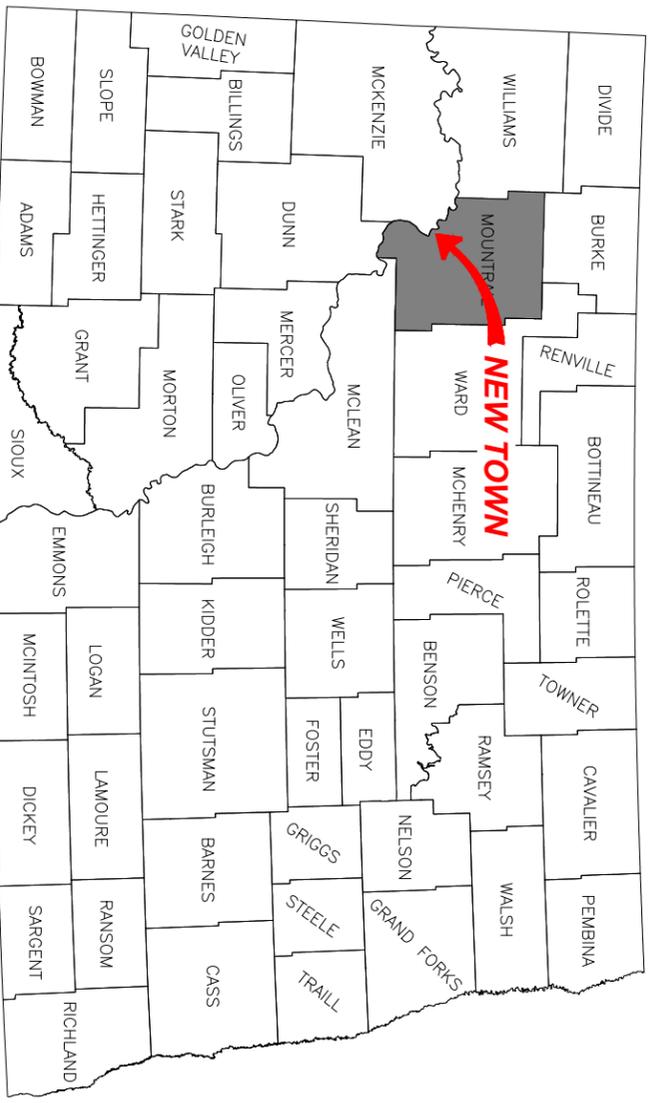
City of New Town - Conceptual Water System Improvements

September 24, 2018



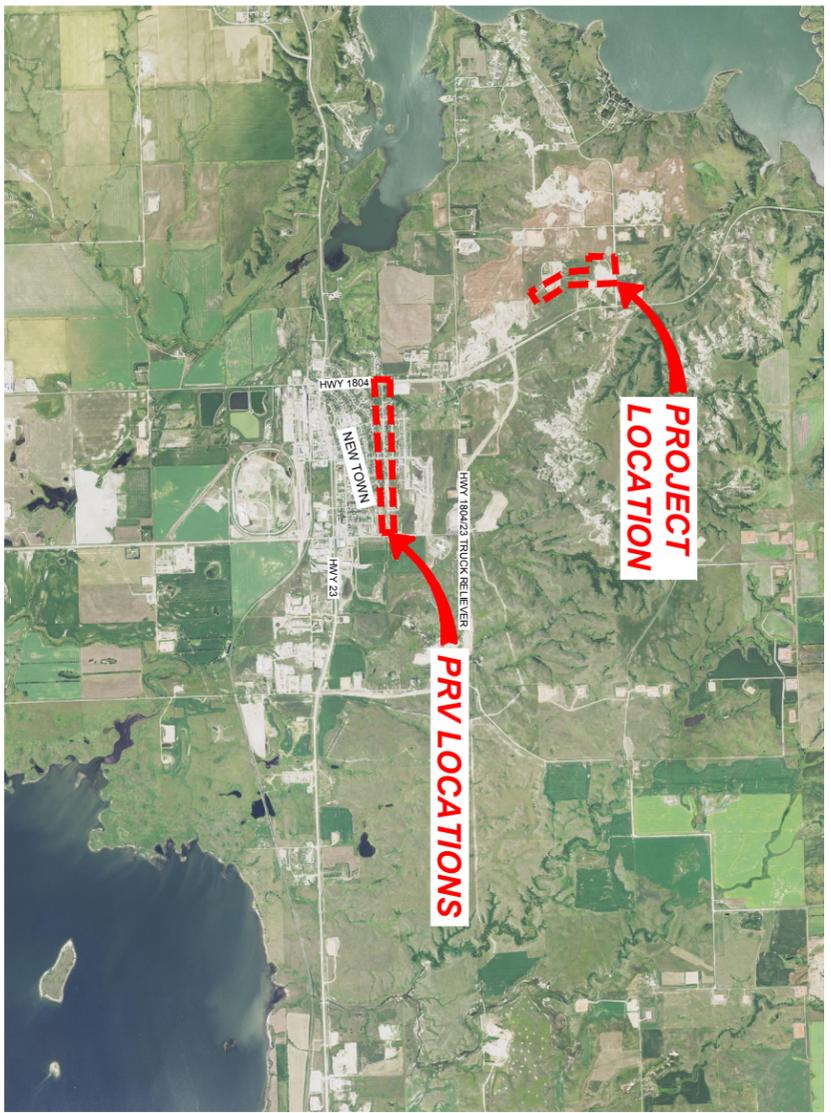
Preliminary Opinion of Total Probable Project Construction Cost

	QUANTITY	UNIT	UNIT COST	MATERIAL COST	2017 ESTIMATED COST	2018 BID PRICE	Additional Cost	Additional Cost-Share
A. General Conditions								
1.0 General Conditions								
a. Insurance, Bonds, Mobilization, Travel, Subsistence, Etc.	1	l.s.			\$ 102,000	\$ -		
Subtotal General Conditions					\$ 102,000	\$ 200,000	\$ 98,000	\$ 58,800
B. Water Storage and Supply System								
1.0 250,000 Gallon Elevated Steel Spheroid								
a. Steel Spheroid (assumes prevailing wages)	1	ea.	\$1,020,000.00	\$1,020,000.00	\$ 1,020,000	\$ 1,515,339		
b. Deep Pile Foundation	1	ea.	\$75,000.00	\$75,000.00	\$ 75,000	\$ 200,000		
c. Electrical/Telemetry/Controls	1	ea.	\$15,000.00	\$15,000.00	\$ 15,000	\$ 159,134		
d. Miscellaneous (does not include security fencing, access road or restoration)	1	ea.	\$15,000.00	\$15,000.00	\$ 15,000	\$ -		
Subtotal 250,000 Gallon Elevated Steel Spheroid					\$ 1,125,000	\$ 1,874,500	\$ 749,500	\$ 449,700
2.0 Transmission Pipeline								
a. 12" C900 DR-25 (160 psi) (**assumes a more rural type install)	5,000	l.f.	\$32.00	\$160,000.00	\$ 160,000	\$ -		
a. 12" C900 DR-25 (160 psi) Restrained Joint (**assumes a more rural type install)	1,000	l.f.	\$40.00	\$40,000.00	\$ 40,000	\$ -		
Subtotal Transmission Pipeline					\$ 160,000	\$ 403,077	\$ 243,077	\$ 145,846
3.0 Fittings - Transmission Pipeline								
a. 12" DI MJ Tee with SS Bolts	4	ea.	\$3,250.00	\$13,000.00	\$ 13,000	\$ -		
b. 12" DI MJ 90 Degree Elbow with SS Bolts	4	ea.	\$1,450.00	\$5,800.00	\$ 5,800	\$ -		
c. Pressure Reducing Valve and Vault	3	ea.	\$15,000.00	\$45,000.00	\$ 45,000	\$ -		
d. Fire/Flush Hydrant Assembly	4	ea.	\$5,500.00	\$22,000.00	\$ 22,000	\$ -		
Subtotal Fittings - Transmission Pipeline					\$ 85,800	\$ 357,319	\$ 271,519	\$ 162,911
4.0 Gate Valves								
a. 12"	4	ea.	\$3,750.00	\$15,000.00	\$ 15,000	\$ -		
Subtotal Gate Valves					\$ 15,000	\$ -		
5.0 Special Connections								
a. Connect to Existing	1	l.s.	\$3,500.00	\$3,500.00	\$ 3,500	\$ -		
Subtotal Special Connections					\$ 3,500	\$ -		
6.0 Access Road & Parking Pad								
a. Clear, grub & strip topsoil	1,000	sy	\$3.50	\$3,500.00	\$ 3,500	\$ -		
b. Scarify, recompact & prep native soil	1,000	sy	\$3.00	\$3,000.00	\$ 3,000	\$ -		
c. 6" - 3" Minus Base Course	100	cy	\$35.00	\$3,500.00	\$ 3,500	\$ -		
d. 3" - 3/4" Minus Aggregate Surface	50	cy	\$45.00	\$2,250.00	\$ 2,250	\$ -		
e. Geotextile Fabric	1,000	sy	\$3.00	\$3,000.00	\$ 3,000	\$ -		
f. 12" culvert	1	ea.	\$1,000.00	\$1,000.00	\$ 1,000	\$ -		
g. Security Fence (400'), Double Swing Gate (1) & Warning Signage (1)	1	l.s.	\$25,000.00	\$25,000.00	\$ 25,000	\$ -		
Subtotal Access Road & Parking Pad					\$ 41,300	\$ 118,370	\$ 77,070	\$ 46,242
7.0 Restoration								
a. Landscape/finish grading, restore topsoil	7.9	acre	\$1,500.00	\$11,850.00	\$ 11,850	\$ -		
b. Seeding	7.9	acre	\$750.00	\$5,925.00	\$ 5,925	\$ -		
Subtotal Restoration					\$ 17,800	\$ -		
8.0 Erosion Control								
a. Erosion Control (SWPPP)	1	l.s.	\$7,500.00	\$7,500.00	\$ 7,500	\$ -		
Subtotal Erosion Control					\$ 7,500	\$ -		
9.0 Land Acquisition (noneligible)								
a. Tank Parcel and Water Line Right-of-Way	3.5	acre	\$75,000.00	\$262,500.00	\$ 262,500	\$ -		
Subtotal Land Acquisition (noneligible)					\$ 262,500	\$ -		
TOTAL CONSTRUCTION COSTS					\$ 1,558,000	\$ 2,953,266		
Contingency					\$ 156,000	\$ 8,525		
TOTAL CONSTRUCTION COSTS W/CONTINGENCY					\$ 1,714,000	\$ 2,961,791		
ELIGIBLE CONSTRUCTION COSTS W/CONTINGENCY					\$ 855,300	\$ 1,425,500	\$ 1,536,291	\$ 921,775
Pre-Construction Engineering					\$ 52,500.00	\$ 150,000	\$ 21,500	\$ 7,525
Construction Engineering					\$ 132,199.80	\$ 220,333	\$ (48,833)	\$ (29,300)
TOTAL					\$ 1,040,000	\$ 1,796,000	\$ 3,304,792	\$ 1,509,000
Other NonEligible Project Costs (Depot/Electrical/Logo)						\$ 300,451		
Total Project Costs						\$ 3,605,243		

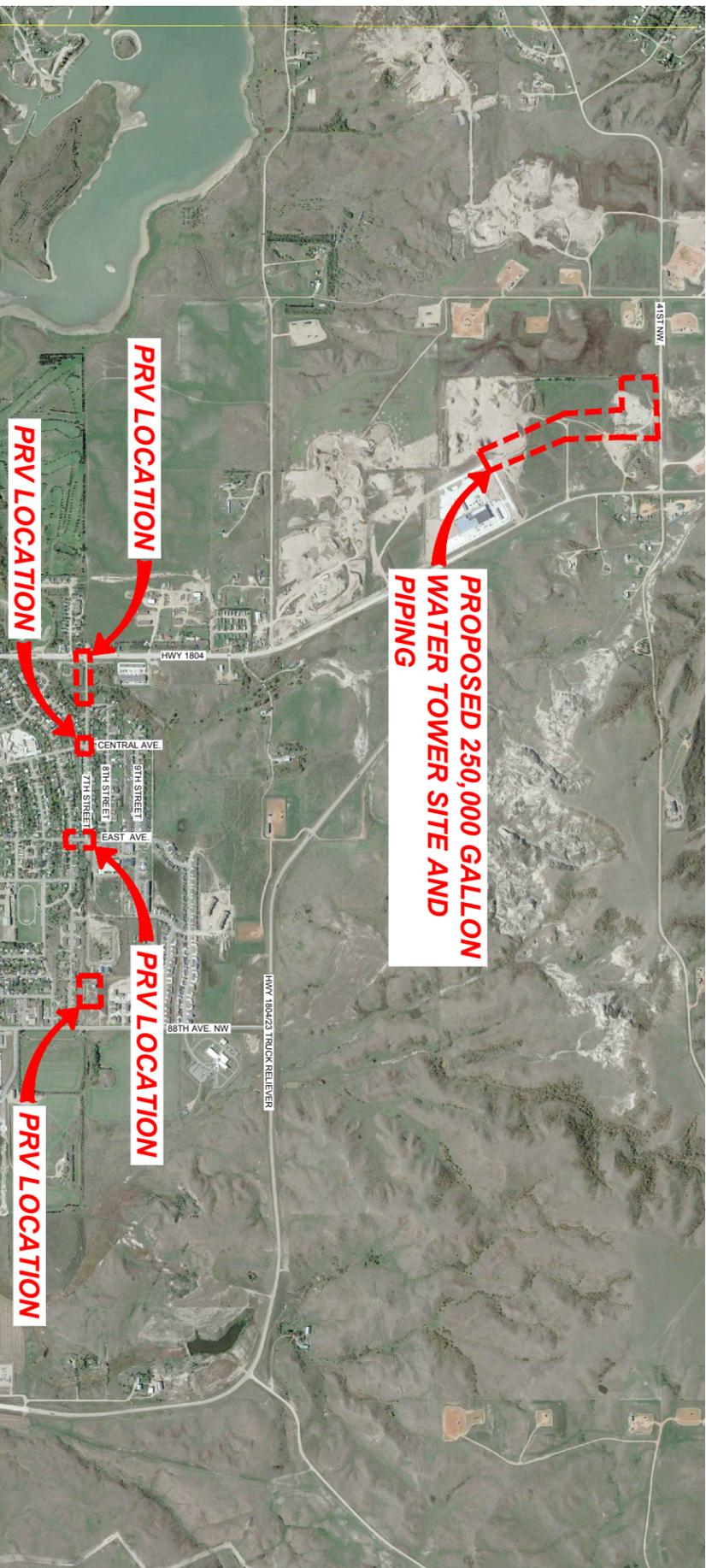


STATE OF NORTH DAKOTA

1 PROJECT LOCATION MAP
 A1 MOUNTRAIL COUNTY



2 PROJECT VICINITY MAP
 A1 MOUNTRAIL COUNTY



3 PROJECT AERIAL MAP
 A1 MOUNTRAIL COUNTY

Advanced Engineering and Environmental Services, Inc. • 103 1st Ave West Ste 300, Dickinson, ND 58601 • (1) 701-225-9636 (f) 701-225-9616 • www.ae2s.com

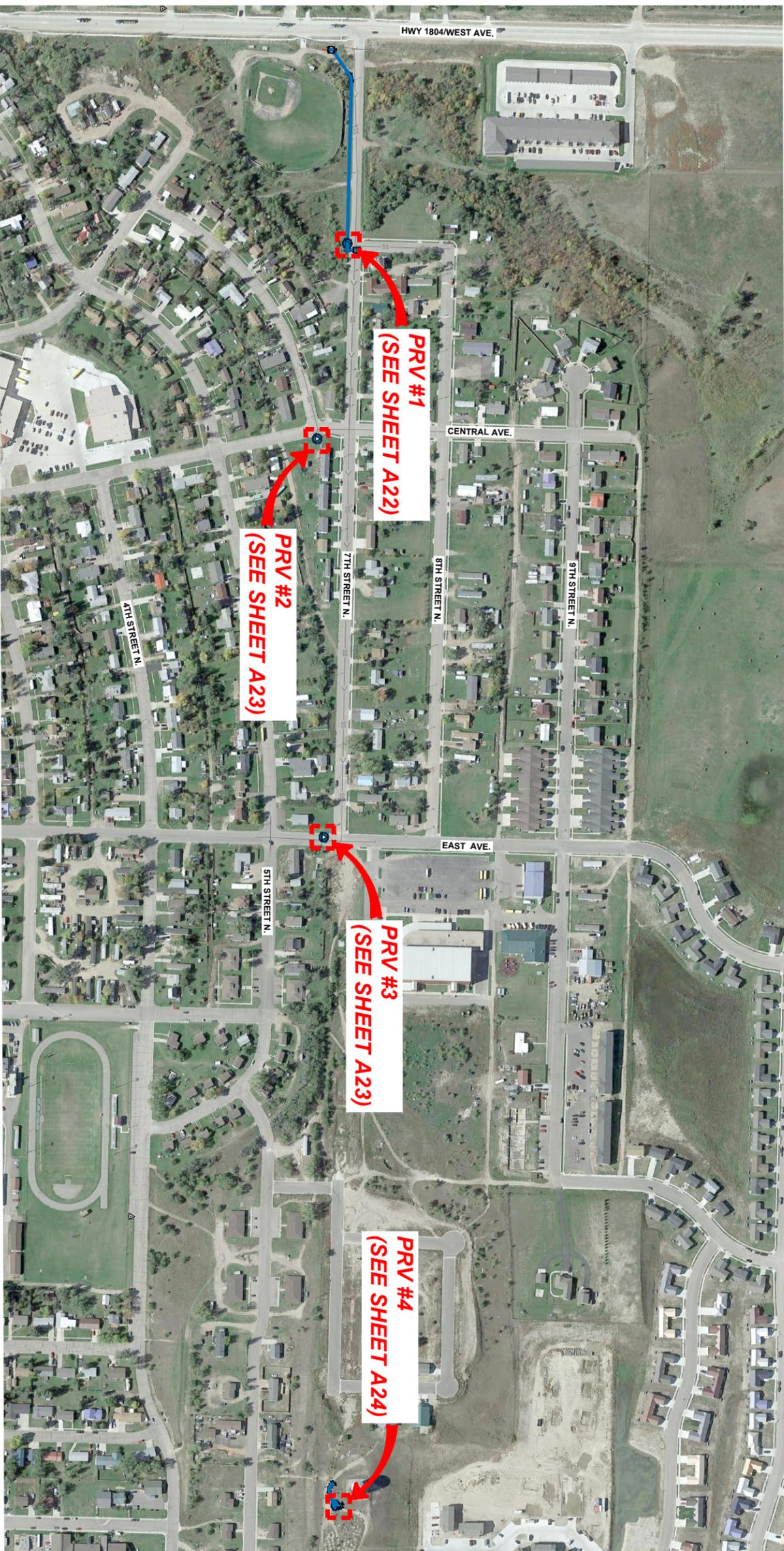
This document was originally issued and sealed by Deon M. Stockert, PE, Registration Number PE-4364 on 6/13/2018 and the original documents are stored at the office of Advanced Engineering & Environmental Services, Inc.

SYM	DATE	DESCRIPTION	APPR



NEW TOWN ELEVATED WATER STORAGE TANK
 CITY OF NEW TOWN
 NEW TOWN, NORTH DAKOTA
 LOCATION MAP

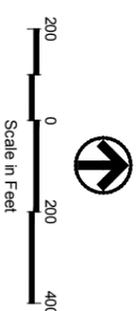
DRAWING TYPE	FINAL
PREPARED BY	RF
CHECKED / APPROVED	MP / DMS
DATE	JUNE 2018
PROJECT NUMBER	00534-2017-010
SHEET	2 of 72
DRAWING	A1



NOTES:

1. WATER MAIN FROM HIGHWAY 1804 TO CENTRAL AVENUE INTENDED TO CONNECT THE NEW ELEVATED TANK TO A PORTION OF THE EXISTING WATER SYSTEM.
2. PRV#1 INTENDED TO REDUCE THE PRESSURE FROM THE ELEVATED TANK TO SERVE A PORTION OF THE EXISTING WATER SYSTEM.
3. PRV#2, #3 AND #4 INTENDED TO CONNECT THE ELEVATED TANK TO THE EXISTING PRESSURE ZONE SERVED BY THE GROUND STORAGE TANK. THESE PRVS ALSO ISOLATE THE NORTHERN AREA FROM THE ELEVATED TANK, WHICH WILL ALLOW HIGHER PRESSURES TO BE PROVIDED BY THE ELEVATED TANK. THESE PRVS WILL ONLY OPERATE WHEN PRESSURES IN THE ZONE SERVED BY THE GROUND STORAGE TANK GET VERY LOW.
4. PRV#1 SHALL BE SET TO BE COMPLETELY CLOSED UNTIL THE ELEVATED TANK IS COMPLETE, ACCEPTED AND OPERATIONAL, AND PRV#2, #3 AND #4 ARE COMPLETE, ACCEPTED AND OPERATIONAL. WHEN THESE COMPONENTS ARE ALL COMPLETE, ACCEPTED AND OPERATIONAL, PRV#1 SHALL BE SET TO THE PRESSURES INCLUDED IN THE SPECIFICATIONS.
5. PRV#2, #3 AND #4 SHALL BE SET TO BE COMPLETELY OPEN, WITH NO PRESSURE REDUCTION, UNTIL THE ELEVATED TANK IS COMPLETE, ACCEPTED AND OPERATIONAL. WHEN THE ELEVATED TANK AND PRV#1 ARE COMPLETE, ACCEPTED AND OPERATIONAL, PRV#2, #3 AND #4 SHALL BE SET TO THE PRESSURES INCLUDED IN THE SPECIFICATIONS.

This document was originally issued and sealed by
 Deon M. Stockert, PE,
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 on 6/13/2018 and the original documents are stored at the
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 Advanced Engineering &
 Environmental Services, Inc.

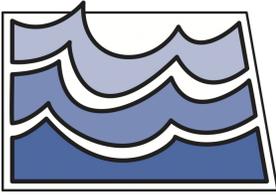


SYM	DATE	DESCRIPTION	APPR



NEW TOWN ELEVATED WATER STORAGE TANK
 CITY OF NEW TOWN
 NEW TOWN, NORTH DAKOTA
 PRV LOCATION MAP

DRAWING TYPE	FINAL
PREPARED BY	RF
CHECKED / APPROVED	MP / DMS
DATE	JUNE 2018
PROJECT NUMBER	00534-2017-010
SHEET	21 of 72
DRAWING	A20



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 • FAX (701) 328-3696 • <http://swc.nd.gov>

MEMORANDUM

Commission Date : 6/14/18
Commission Action : Approved (cfitzgerald)

Approved reallocation of \$368,778.

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer/Secretary
SUBJECT: NDSWC Cost-Share Request – City of Minot
System Wide Improvement Framework – Reallocation
DATE: May 18, 2018

Garland Erbele

On June 22, 2017 the State Water Commission approved \$950,254 for the City of Minot's 2017 Levee Repair, Bank Stabilization, and Snagging and Clearing Project which included improvements necessitated as part of the System Wide Improvement Framework (SWIF) process for their existing flood control system. Bids for the construction of this project came in under the engineer's original estimate, and the City of Minot is requesting that the unused funds of \$368,778 be reallocated.

The city is now requesting a total cost share of \$756,211 for two additional SWIF related flood control projects, that would protect areas behind the current levee system in the City of Minot by constructing gatewells to better manage storm water behind the levees and prevent backflow from the river.

The current request includes, \$387,433 in new monies and reallocation of \$368,778 from the City of Minot's 2017 Levee Repair, Bank Stabilization, and Snagging and Clearing Project. Because of competing demands for funding from the flood control bucket, we do not recommend the allocation of any new monies.

I recommend the State Water Commission approve this request by the City of Minot to reallocate \$368,778 from the cost share allocation for City of Minot's 2017 Levee Repair, Bank Stabilization, and Snagging and Clearing Project to the City of Minot's 2018 Outfall Pipe Rehabilitation Project. This approval is subject to the entire contents of the recommendation contained herein and the availability of funds.

GE:ck/2107-02



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (5/2017)

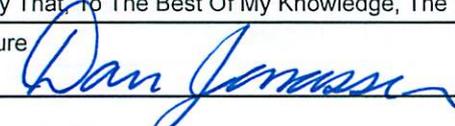


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name City of Minot 2018 Outfall Pipe Rehabilitation Project, Minot SWIF Action D, Project No. 3135.2D		
Sponsor(s) City of Minot		
County Ward	City Minot	Township/Range/Section (See Attached)
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Stabilize bank erosion and provide flood protection for areas of Minot.		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input checked="" type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input checked="" type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control
<input type="checkbox"/> Dam Safety/EAP	<input type="checkbox"/> Property Acquisition	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved City of Minot and Ward County Water Resource Board		
Description Of Problem Or Need And How Project Addresses That Problem Or Need The USACE performs annual inspections on the Mouse River flood control system through Minot. These inspections identified multiple deficiencies that pose a risk to the integrity of the flood control system. The deficiencies proposed to be resolved by this project include a deteriorated flood control structure (Area 4), an existing outfall without backflow protection (Area 9), and a channel bank failure effecting system stability (Area 22). This project will replace portion of the existing flood control structure that has reached the end of its life (Area 4), install a closure structure on an existing unprotected 60" outfall pipe (Area 9), and stabilize an existing bank erosion area threatening the stability of a flood control levee (Area 22). The work included in this cost share request is consistent with the System Wide Improvement Framework (SWIF) developed for the Mouse River Systems in Minot that has been reviewed and accepted by the USACE.		
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> Ongoing	<input type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	<input type="checkbox"/> Ongoing	<input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	<input checked="" type="checkbox"/> Ongoing	<input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The project components have been identified as being necessary by the SWIF which has gone through multiple levels of review by the USACE.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 756,211.10	\$	\$ 680,589.99	\$ 75,621.11
Other State	\$	\$	\$	\$
Local	\$ 541,387.90	\$	\$ 487,249.11	\$ 54,138.79
Total	\$ 1,297,599.00	\$	\$ 1,167,839.10	\$ 129,759.90
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied None				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Engineering design is complete and project has been advertised for bids. Construction is anticipated to begin in the Summer of 2018 and be completed in the Fall of 2019.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Dan Jonasson, Public Works Director, City of Minot				Date
Address PO Box 5006		City Minot	State ND	ZIP Code 58701
Telephone Number 701-857-4140		Sponsor Email Dan.Jonasson@minotnd.org		Engineer Email mllove@houstoneng.com
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 				Date 5/15/18

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

Cost-Share Request Form
North Dakota State Water Commision
Development Division
Township/Range/Section
155N-83W-14
155N-83W-23
155N-82W-29

Opinion of Probable Cost
City of Minot 2018 Outfall Pipe Rehabilitation Project
Minot SWIF Action D
Minot, North Dakota
May 11, 2018

No.	Item	Unit	Total Quantity	Area 4 Quantity	Area 9 Quantity	Area 22 Quantity	Area 1-3, 5-8, 10-21 Quantity	Area 4 Unit Price	Area 9 Unit Price	Area 22 Unit Price	Area 1-3, 5-8, 10-21 Unit Price	Area 4 Price	Area 9 Price	Area 22 Price	Area 1-3, 5-8, 10-21 Price	Total Price
1	Mobilization	EA	4	1	1	1	1	\$15,000.00	\$20,000.00	\$5,000.00	\$40,000.00	\$15,000.00	\$20,000.00	\$5,000.00	\$40,000.00	\$80,000.00
2	Clearing and Grubbing	LS	1								\$8,000.00				\$8,000.00	\$8,000.00
3	Remove Tree	EA	27	2	12	3	10	\$500.00	\$500.00	\$500.00	\$500.00	\$1,000.00	\$6,000.00	\$1,500.00	\$5,000.00	\$13,500.00
4	Remove Tree in Levee	EA	1								\$800.00				\$800.00	\$800.00
5	Remove Bluminous Pavement	SY	868				868				\$8.00				\$6,944.00	\$6,944.00
6	Remove Gravel Surfacing	SY	986				986				\$5.00				\$4,930.00	\$4,930.00
7	Remove Concrete Pavement	SY	14				14				\$15.00				\$210.00	\$210.00
8	Remove Curb and Gutter	LF	366				366				\$10.00				\$3,660.00	\$3,660.00
9	Remove Sidewalk	SY	183				183				\$7.00				\$1,281.00	\$1,281.00
10	Remove Hydrant and Valve	EA	1				1				\$1,500.00				\$1,500.00	\$1,500.00
11	Remove Storm Catch Basin	EA	1				1				\$100.00				\$100.00	\$100.00
12	Remove Storm Manhole	EA	6	1	1		5		\$2,000.00		\$2,000.00	\$2,000.00	\$2,000.00	\$10,000.00	\$12,000.00	
13	Remove Storm Vault	LS	1	1			1		\$10,000.00			\$10,000.00			\$10,000.00	\$10,000.00
14	Remove Sanitary Manhole	EA	2				2				\$2,000.00				\$4,000.00	\$4,000.00
15	Remove Concrete Outfall Structure	EA	2				2				\$3,000.00				\$6,000.00	\$6,000.00
16	Remove and Replace Inlet Casing	EA	1				1				\$800.00				\$800.00	\$800.00
17	Remove Pipe (All Types, Less than 60")	LF	1,150		67	38	1045		\$40.00	\$40.00	\$40.00	\$2,680.00	\$1,520.00	\$41,800.00	\$46,000.00	
18	Remove Storm Sewer (60" RCP)	LF	406		406				\$100.00			\$40,600.00			\$40,600.00	\$40,600.00
19	Remove Storm Sewer (96" CMP)	LS	1	1				\$10,000.00				\$10,000.00			\$10,000.00	\$10,000.00
20	Abandon Manhole (All Types, All Sizes)	EA	1				1				\$2,000.00				\$2,000.00	\$2,000.00
21	Abandon Pipe (All Types, All Sizes)	LF	318				318				\$20.00				\$6,360.00	\$6,360.00
22	Clean and Jet 8" Pipe	LF	35				35				\$15.00				\$525.00	\$525.00
23	Clean and Jet 12" Pipe	LF	584				584				\$18.00				\$10,512.00	\$10,512.00
24	Remove 12" Flap Gate	EA	1				1				\$200.00				\$200.00	\$200.00
25	Remove 24" Flap Gate	EA	1				1				\$300.00				\$300.00	\$300.00
26	Strip and Stockpile Topsoil	CY	590		400		190		\$10.00	\$10.00	\$10.00	\$4,000.00	\$4,000.00	\$1,900.00	\$5,900.00	\$5,900.00
27	Install Salvaged Topsoil	CY	590		400		190		\$10.00	\$10.00	\$10.00	\$4,000.00	\$4,000.00	\$1,900.00	\$5,900.00	\$5,900.00
28	Import and Install Topsoil	CY	100		50		50		\$30.00	\$30.00	\$30.00	\$3,000.00	\$3,000.00	\$1,500.00	\$3,000.00	\$3,000.00
29	Import and Install Approved Levee Fill	CY	2,562		1830	160	572		\$20.00	\$20.00	\$20.00	\$36,600.00	\$3,200.00	\$3,200.00	\$51,240.00	\$51,240.00
30	Exploration Trench	CY	900				900				\$25.00				\$22,500.00	\$22,500.00
31	Excavation	CY	230		140		90		\$25.00	\$25.00	\$25.00	\$3,500.00	\$3,500.00	\$2,250.00	\$5,750.00	\$5,750.00
32	NDDOT CL 5 Aggregate (6" Thick)	SY	247				247				\$30.00				\$7,410.00	\$7,410.00
33	Bluminous Pavement (4" Thick)	SY	708		440		708				\$80.00				\$56,640.00	\$56,640.00
34	Concrete Driveway (6" Thick)	SY	440				440				\$100.00				\$44,000.00	\$44,000.00
35	Concrete Sidewalk (4" Thick)	SY	130				130				\$60.00				\$7,800.00	\$7,800.00
36	Curb and Gutter - Type 1	LF	351				351				\$40.00				\$14,040.00	\$14,040.00
37	6" PVC Watermain	LF	39				39				\$55.00				\$2,145.00	\$2,145.00
38	6" 45° Bend	EA	4				4				\$225.00				\$900.00	\$900.00
39	6" Cap	EA	1				1				\$100.00				\$100.00	\$100.00
40	Fire Hydrant	EA	3				3				\$6,000.00				\$18,000.00	\$18,000.00
41	6" Gate Valve	EA	3				3				\$2,500.00				\$7,500.00	\$7,500.00
42	Connect to Existing Watermain	EA	1				1				\$2,500.00				\$2,500.00	\$2,500.00
43	Modify Existing Manhole	EA	1				1				\$1,000.00				\$1,000.00	\$1,000.00
44	Core Existing Manhole	EA	6		1		5				\$1,500.00				\$7,500.00	\$7,500.00
45	Gatewell Structure	LS	1	1			1				\$300,000.00				\$300,000.00	\$300,000.00
46	Gatewell and Outfall Modifications	LS	1	1			1				\$80,000.00				\$80,000.00	\$80,000.00

Minot SWIF Action D - Cost Share Calculations				
Item	Total Est. Project Cost	SWC Cost Share	SWC Cost Share	Local Cost Share
Area 4 Construction - Flood Protection	\$350,862.00	60%	\$210,517.20	\$140,344.80
Area 9 Construction - Flood Protection	\$723,254.00	60%	\$433,952.40	\$289,301.60
Area 22 Construction - Bank Stabilization	\$68,483.00	50%	\$34,241.50	\$34,241.50
Construction Engineering	\$155,000.00	50%	\$77,500.00	\$77,500.00
Totals	\$1,297,599.00		\$756,211.10	\$541,387.90



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

RECEIVED
MAY 17 2018

STATE WATER COMMISSION

CEMVP-PM-B

14 May 2018

MEMORANDUM FOR Omaha District Regulatory, (CENWO-OD-R-ND/Ms. Toni Erhardt), 1513 South 12th Street, Bismarck, ND 58504

SUBJECT: City of Minot 2018 Outfall Pipe Rehabilitation Project. Minot SWIF Action D.

1. The U.S. Army Corps of Engineers, St. Paul District has completed its review of the Minot System-Wide Improvement Framework (SWIF) Action D repairs project. These repair areas have been identified in past levee safety inspections and are affected by unacceptable deficiencies due to the condition of the existing outfall pipes and the lack of backflow prevention on several of them.

2. The repair areas have been identified as high priority repairs in the Ward County and city of Minot SWIF plans. In accordance with Minot's approved SWIF plan, the city has completed television inspections of the outfall pipes within the Minot system. This process has identified several outfall pipes that are in need of repair or replacement due to their existing condition. Previous levee inspections have also identified several outfall pipes that do not have proper means of closure to prevent river water from flowing back through the levee system during high water events. The St. Paul District has reviewed the outfall repair plans and agree that the designs, as developed, are required to adequately address the deficiencies. The plan will generally restore the outfall pipes back to their original condition or provide outfall improvements to add backflow prevention and meet current levee safety standards.

3. If you have any questions regarding this memorandum or if additional information is required please contact me at 651-290-5477.

A handwritten signature in black ink, appearing to read "Nathan Wallerstedt".

Nathan Wallerstedt, PE, PMP
Chief, Project Management Branch (PM-B)

City of Minot

Public Works Department

RECEIVED
MAY 17 2018
STATE WATER COMMISSION

May 14, 2018

North Dakota State Water Commission
ATTN: Cost-Share Program
900 East Boulevard
Bismarck, ND 58505-0850

RE: Cost Share Request – City of Minot 2018 Outfall Pipe Rehabilitation Project, SWIF Action D

The Mouse River flood control system provides flood protection for the City of Minot and has a significant risk to loss of life if a failure occurs. The USACE performs annual inspections on the Mouse River flood control system through Minot to assess the condition of the system. These inspections identified multiple deficiencies that pose a risk to the integrity of the flood control system. In order to address these deficiencies, the City of Minot developed a System Wide Improvement Framework (SWIF) that outlines the City's strategy for addressing the system's deficiencies. The work included in this cost share request is consistent with the System Wide Improvement Framework (SWIF).

The deficiencies proposed to be resolved by this project include a deteriorated flood control structure (Area 4), an existing outfall without backflow protection (Area 9), and a channel bank failure effecting system stability (Area 22). This project will replace the portion of the existing flood control structure that has reached the end of its life (Area 4), install a flood closure structure on an existing unprotected 60" outfall pipe (Area 9), and stabilize an existing bank erosion area threatening the stability of a flood control levee (Area 22). These areas are shown in detail on the included construction plans. The project has been designed and is currently being advertised for bids. The project is scheduled to begin construction in the summer of 2018 and be completed in the fall of 2019.

With this letter and the attached supporting documentation, the City of Minot respectfully requests cost-share from the North Dakota State Water Commission for 60 percent of eligible construction related to the Area 4 and Area 9 Flood Protection activities, 50 percent of eligible construction for the Area 22 Bank Stabilization activities, and 50 percent of eligible construction engineering costs. The total estimated project cost for Areas 4, 9, and 22 at this time is \$1,297,599 and the requested Cost Share amount is \$756,211.10. The City of Minot has partnered with the Ward County Water Resource Board for the Area 22 repair. The Ward County Water Resource Board has agreed to provide the local cost share for that repair.

On April 28, 2017 a cost share application was submitted for the City of Minot 2017 Levee Repair, Bank Stabilization, and Snagging Project. As part of that application the City was approved for \$950,254 in funding. The construction bids came in under our original estimate. As a result, we estimate that there will be between \$300,000 and \$400,000 in unused funds from last year's cost share agreement. The City

★ *The Magic City* ★

PO Box 5006 • Minot, North Dakota 58702-5006 • (701) 857-4140 • Fax (701) 857-4130

requests that the State Water Commission reallocate any unused funds from the 2017 agreement to this year's Outfall Pipe Rehabilitation Project.

If you have any questions, please feel free to contact me or our project engineer, Mike Love, Houston Engineering, Inc. at 701-237-5065.

A handwritten signature in blue ink that reads "Dan Jonasson". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Dan Jonasson
Public Works Director, City of Minot

CC: Mike Love, Houston Engineering, Inc., Fargo, ND

City of Minot

CITY OF MINOT 2018 OUTFALL PIPE REHABILITATION PROJECT

MINOT SWIF ACTION D
CITY OF MINOT, NORTH DAKOTA
CITY PROJECT NO. 3135.2D
MAY 2018

SURVEY INFORMATION
HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 88
VERTICAL DATUM CONVERSION: NAVD 88 = NOVD 29 + 1.32'
COORDINATE SYSTEM: ND STATE PLANE NORTH ZONE
UNIT OF MEASURE: U.S. SURVEY FOOT

- NOTES:**
1. AERIAL IMAGE IS FROM 2015 AND MAY NOT REFLECT CURRENT CONDITIONS.
 2. EXISTING GROUND SURVEYS ARE A USURANCE FROM SIX MONTHS AND FIELD SURVEY AND MAY NOT REFLECT CURRENT CONDITIONS.

THE UNDERGROUND UTILITIES HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AS BUILT MAPS AS PROVIDED BY MUNICIPALITIES OR UTILITY COMPANIES. ANOTHER EXISTING DRAWINGS. THERE IS NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE PROJECT AREA. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY AND ALL EXISTING UTILITIES. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY RESULT FROM ITS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.

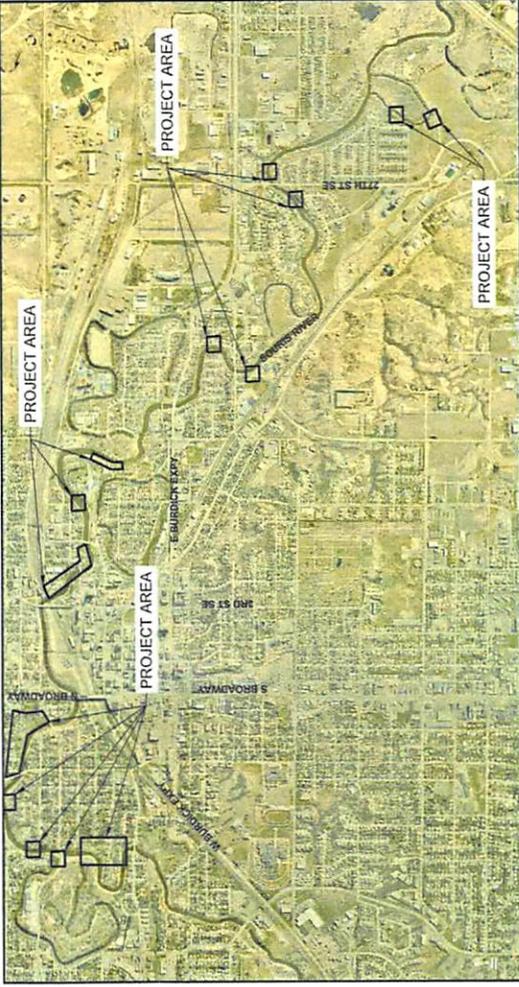
SHEET INDEX

General Plans	Cover Sheet
1 COVER SHEET	29 AREA 18
2 GENERAL NOTES	23 AREA 19
3 AREA 2-3	24 AREA 20
4 AREA 4	25 AREA 21
5-6 AREA 5-6	26-27 AREA 22
7 AREA 7	28-29 AREA 23
8-10 AREA 8A-8B	30-31 AREA 24
11-12 AREA 9A-9B	32-33 AREA 25
13-14 AREA 10A-10B	34-35 AREA 26
15-16 AREA 11-12A, 12B	36-37 AREA 27
17 AREA 13	38-39 AREA 28
18 AREA 14	40-41 AREA 29
19 AREA 15	42-43 AREA 30
20-21 AREA 16	44-45 AREA 31

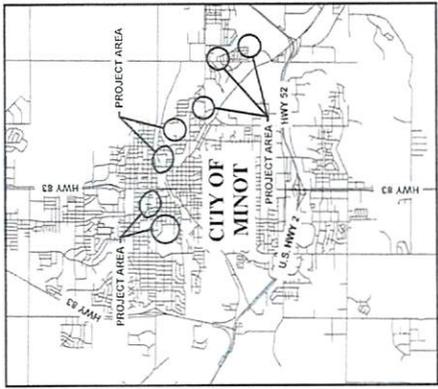
THIS DOCUMENT WAS
ORIGINALLY ISSUED AND
SEALED BY
RANDY C. ENGELSTAD
REGISTRATION NUMBER
PE-6676
ON 05/11/18 AND THE
ORIGINAL DOCUMENT IS
STORED AT HOUSTON
ENGINEERING, INC., 1401
21ST AVE. N. FARCO, ND
58102



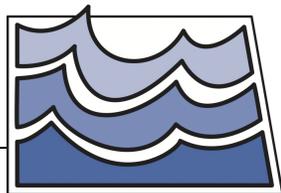
LEGEND	EXISTING	NEW
WATER MAIN	— W —	— W —
SEWER MAIN	— S —	— S —
STORM SEWER MAIN	— ST —	— ST —
STORM SEWER LIFT	— SL —	— SL —
MANHOLE	○	○
CLEARCUT	— C —	— C —
FIRE HYDRANT	— F —	— F —
LIGHT POLE	— L —	— L —
UNDERGROUND ELECTRIC	— U —	— U —
UNDERGROUND TELEPHONE	— T —	— T —
C&M	— C —	— C —
CONFIRMED TREE	●	●
RECOMMEND TREE	○	○
REMOVE TREE	⊗	⊗
REMOVE TREE PLANT	⊗	⊗
CONSTRUCTION LIMITS	— X —	— X —
POSTING BILT CURB/RAIN	— P —	— P —
GUT FENCE	— G —	— G —
NO-SHALL	— N —	— N —
RAIL PROTECTION	— R —	— R —
STANDARD CURB & GUTTER	— C —	— C —
CLEAR & GRASS LIMITS	— CL —	— CL —
NEIGHBOR AREA	— N —	— N —
NEW BITUMINOUS PAVEMENT	— B —	— B —
NEW CONCRETE	— C —	— C —
DRAINAGE DIRECTION	— D —	— D —
EMERGENCY FILL AREAS	— E —	— E —
EGG WATER PAVES	— W —	— W —
SEED AND MULCH	— S —	— S —
EROSION CONTROL BASKET	— B —	— B —
CONSTRUCTION ENTRANCE	— E —	— E —



LOCATION MAP



VICINITY MAP



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 • FAX (701) 328-3696 • <http://swc.nd.gov>

September 20, 2017

Mark Brodshaug, Chairman
Cass County Joint Water Resource District
1201 Main Avenue West
West Fargo, ND 58078-1301

RE: Sheldon Subdivision Levee

Dear Chairman Brodshaug:

I am writing in response to the Cass County Joint Water Resource District's recent request for cost share assistance for the Sheldon Subdivision Levee project. The application requested cost share of \$323,570 on a total project cost of \$617,000.

For the 2017-2019 biennium, there is a total of \$136M in the flood control bucket. With large flood control projects in various stages of construction in Fargo, Minot, Valley City and Lisbon and with another \$18M of other potential flood control needs identified during last year's planning process and with revenues currently falling behind projection, we cannot obligate funding for new flood control projects that were not submitted as part of the State Water Plan process at this time. It may be possible to fund your project later in the biennium, especially if revenues increase. We will keep your request on file within our database for potential reconsideration later in the biennium.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Craig Odenbach'.

Craig Odenbach, P.E., CFM
Director, Water Development Division

CO:bn/2118



July 17, 2017

Cass County
Joint Water
Resource
District

Beth Nangare
Cost Share Administrator
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck ND 58505-0850

Dear Beth:

RE: Sheldon Addition Levee
Raymond Township, Cass County, North Dakota

Mark Brodshaug
Chairman
West Fargo, North Dakota

Rodger Olson
Manager
Leonard, North Dakota

Dan Jacobson
Manager
West Fargo, North Dakota

Ken Lougheed
Manager
Gardner, North Dakota

Jacob Gust
Manager
Fargo, North Dakota

Over the past few months, the residents of Sheldon Addition and the Cass County Joint Water Resource District (CCJWRD) have discussed the need for permanent flood protection. Sheldon Addition is located in Section 34 of Raymond Township and includes 14 homes.

The CCJWRD has completed the preliminary engineering for the proposed Sheldon Addition Levee Project (the "Project"). The Project will include a 3,100' levee constructed on the north and east sides of the addition, tying into the township road on the west side and Cass County Highway 10 on the south side. The township road on the west side, 166th Avenue SE, will be raised to a higher elevation. Culverts with sluice gates will be included to allow for interior drainage.

The CCJWRD respectfully requests 35% cost-share for pre-construction engineering and 60% of remaining eligible costs under the North Dakota State Water Commission Flood Protection Program cost-share category, for a total of \$323,570. Enclosed is a map showing the location of the project, a preliminary set of plans, the *Engineer's Opinion of Probable Cost* and the *Cost-share Request Form*.

If you have any questions, please feel free to contact me or our project manager, Mike Opat, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

CASS COUNTY JOINT WATER RESOURCE DISTRICT

Carol Harbeke Lewis
Secretary-Treasurer



Enclosures

Carol Harbeke Lewis
Secretary-Treasurer

1201 Main Avenue West
West Fargo, ND 58078-1301

701-298-2381
FAX 701-298-2397
wrđ@casscountynd.gov
casscountygov.com



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (3/2017)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Sheldon Subdivision Levee			
Sponsor(s) Cass County Joint Water Resource District			
County Cass	City	Township/Range/Section T-140N / R-50W / Sec 34	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study This project will address flooding issues to Sheldon Subdivision.			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input checked="" type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Cass County Joint WRD & Local Landowners			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Construction of a levee will address flooding issues within Sheldon Subdivision.			
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable			
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The proposed improvement project has been discussed at WRD meetings and with landowners.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No obstacles are expected at this time.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$	\$	\$ 323570	\$
Other State	\$	\$	\$	\$
Local	\$	\$	\$ 293430	\$
Total	\$	\$	\$ 617000	\$
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied Cass County Flood Sales Tax				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Final design will be completed after cost-share approval. Construction would likely start 2018.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Carol Harbeke Lewis, Secretary/Treasurer			Date	
Address 1201 Main Ave W		City West Fargo	State ND	ZIP Code 58078
Telephone Number (701) 298-2381		Sponsor Email LewisC@Casscountynd.gov		Engineer Email MOPat@mooreengineeringinc.com
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 7-17-17	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**SWC Rev'd
Jul 20, 2017**

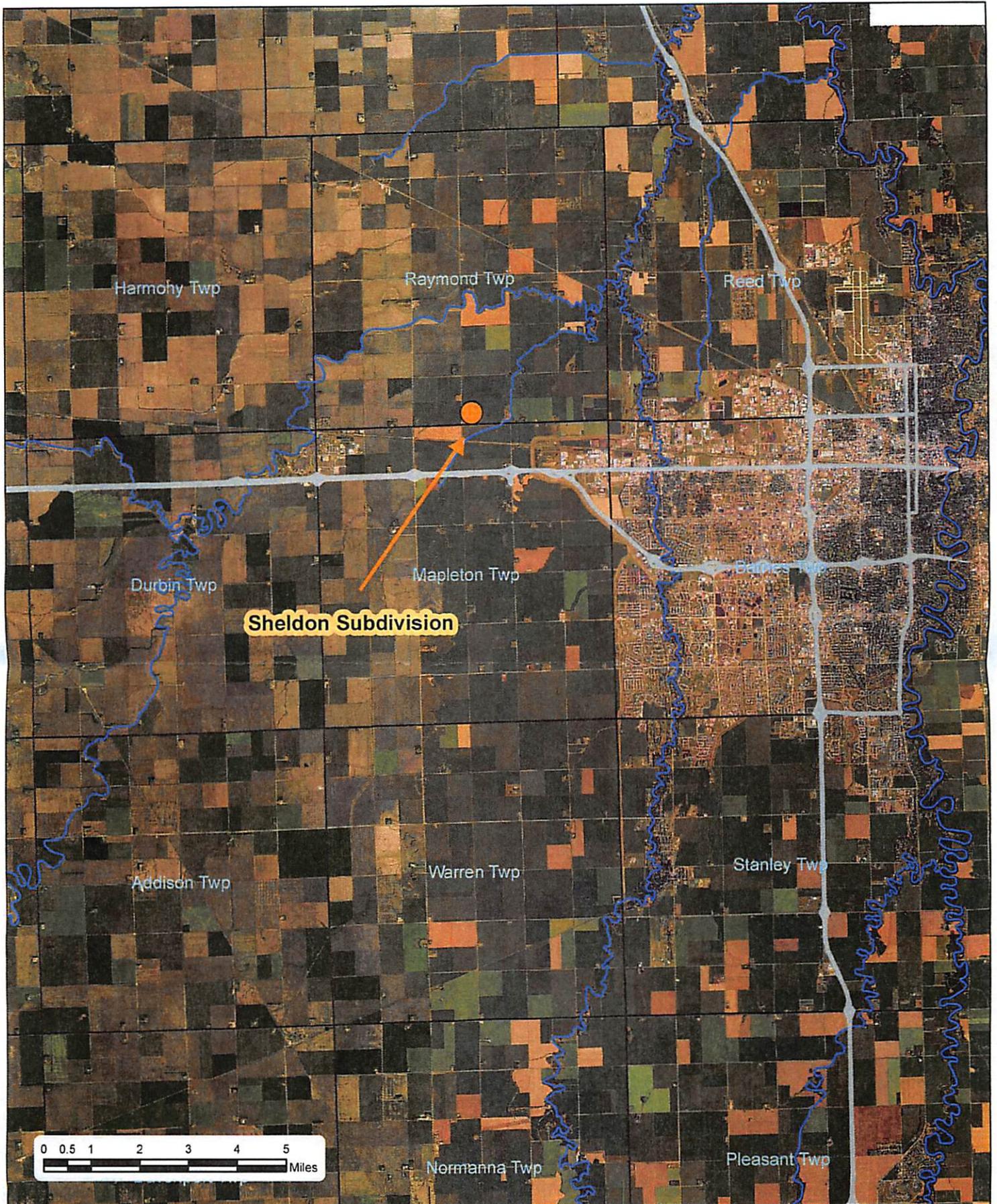
**Sheldon Subdivision Ring Levee
Cass County Water Resource District
Cass County, North Dakota**

Engineer's Opinion of Probable Cost - Material from off-site source

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES	
					NDSWC - 60%	LOCAL
1. Mobilization	LS	1	\$5,000.00	\$5,000.00	\$3,000.00	\$2,000.00
2. Excavation	CY	1,500	\$4.00	\$6,000.00	\$3,600.00	\$2,400.00
3. Embankment	CY	1,125	\$4.00	\$4,500.00	\$2,700.00	\$1,800.00
4. Inspection Trench	LF	3,000	\$6.00	\$18,000.00	\$10,800.00	\$7,200.00
5. Fill - Import (Levee)	CY	7,975	\$22.00	\$175,450.00	\$105,270.00	\$70,180.00
6. Fill - Import (Road)	CY	4,030	\$22.00	\$88,660.00	\$53,196.00	\$35,464.00
7. Gravel - Class 13	CY	540	\$20.00	\$10,800.00	\$6,480.00	\$4,320.00
8. Geotextile Fabric	SY	3,225	\$2.50	\$8,062.50	\$4,837.50	\$3,225.00
9. Topsoil Strip and Spread	AC	4.2	\$1,250.00	\$5,250.00	\$3,150.00	\$2,100.00
10. Seeding	AC	4.2	\$1,250.00	\$5,250.00	\$3,150.00	\$2,100.00
11. CSP - 36"	LF	375	\$40.00	\$15,000.00	\$9,000.00	\$6,000.00
12. Flared End Section - 36" CSP	EA	5	\$350.00	\$1,750.00	\$1,050.00	\$700.00
13. Sluice Gate - 36"	EA	5	\$4,000.00	\$20,000.00	\$12,000.00	\$8,000.00
14. Riprap - Class IV	CY	600	\$60.00	\$36,000.00	\$21,600.00	\$14,400.00
15. Riprap Filter Blanket	SY	900	\$2.50	\$2,250.00	\$1,350.00	\$900.00
16. Sedimentation Fence	LF	4,500	\$3.00	\$13,500.00	\$8,100.00	\$5,400.00
17. Storm Water Management	LS	1	\$2,500.00	\$2,500.00	\$1,500.00	\$1,000.00
18. Material Testing	INVOICE	Allowance	\$5,000.00	\$5,000.00	\$3,000.00	\$2,000.00
Total Construction				\$422,972.50	\$253,783.50	\$169,189.00
Engineering - Preliminary				\$15,000.00	\$0.00	\$15,000.00
Engineering - Design (35% cost-share)				\$34,000.00	\$11,900.00	\$22,100.00
Engineering - Construction				\$34,000.00	\$20,400.00	\$13,600.00
Contingencies (10%)				\$42,477.50	\$25,486.50	\$16,991.00
Legal Fees				\$10,000.00	\$0.00	\$10,000.00
Administration Fees				\$2,500.00	\$0.00	\$2,500.00
Right-of-Way Land Acquisition				\$27,050.00	\$0.00	\$27,050.00
Right-of-Way Administration				\$3,000.00	\$0.00	\$3,000.00
Easements & Monuments				\$3,000.00	\$0.00	\$3,000.00
Utility Company Relocations				\$20,000.00	\$12,000.00	\$8,000.00
Utility Relocation Administration				\$2,000.00	\$0.00	\$2,000.00
Fiscal				\$1,000.00	\$0.00	\$1,000.00
TOTAL PROJECT COST				\$617,000.00	\$323,570.00	\$293,430.00

R.O.W. Summary		
	Acres	Price/Acre
Permanent R.O.W.	5.2	\$5,000.00
Temp Const. Ease.	3.5	\$300.00





Sheldon Subdivision

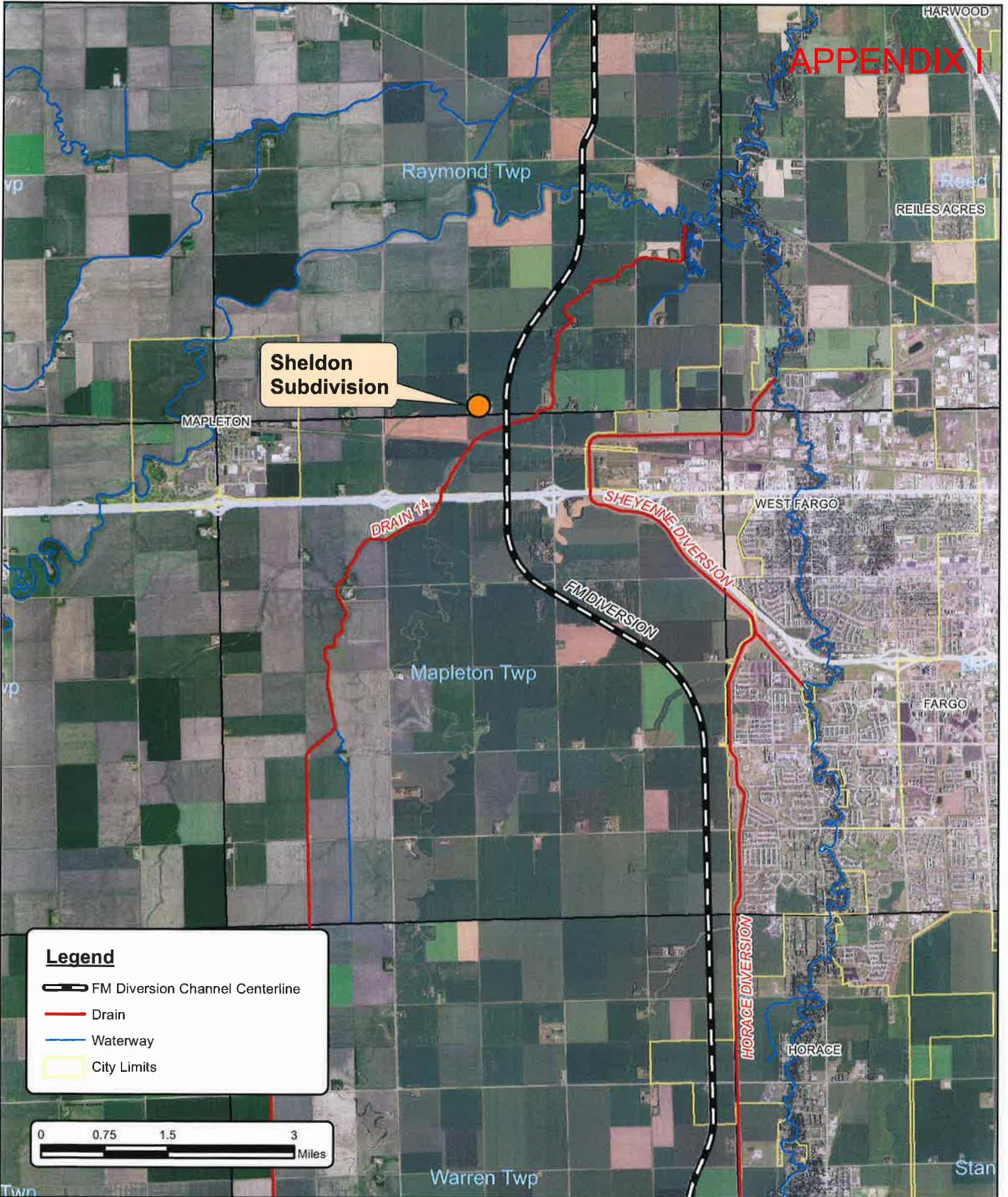
PROJECT LOCATION
SHELDON SUBDIVISION RING LEVEE
CASS COUNTY, NORTH DAKOTA

SWC Rcv'd
 Jul 20, 2017



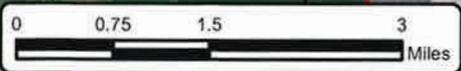
moore
 engineering, inc.

Created By: TEM Date Created: 6/23/17 Date Saved: 06/23/17 Date Plotted: 06/23/17 Date Exported: 06/23/17
 Plotted By: tyler.maasjo Parcel Date: XXXX/16 Aerial Image: 2015 County NAIP SIDS Elevation Data: Lidar
 Horizontal Datum: NAD 1983 UTM Zone 14N Vertical Datum: NAVD1988
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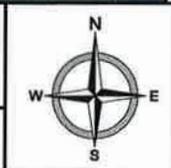


Legend

-  FM Diversion Channel Centerline
-  Drain
-  Waterway
-  City Limits



PROJECT LOCATION
SHELDON SUBDIVISION LEVEE
CASS COUNTY, NORTH DAKOTA



Created By: TEM/KMV Date Created: 6/23/17 Date Saved: 10/09/18 Date Expired: 10/09/18
 Plotted By: Kyle Volk Parcel Date: N/A Aerial Image: 2016 County NAIP SIDS Revision Data: N/A
 Horizontal Datum: NAD 1983 UTM Zone 14N Vertical Datum: NAVD1988
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COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (8/2018)

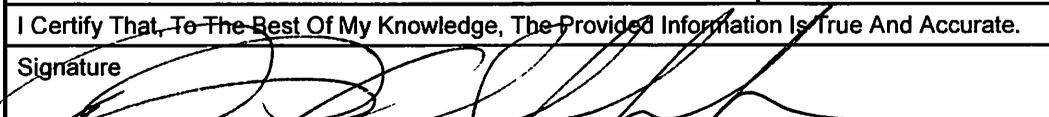


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

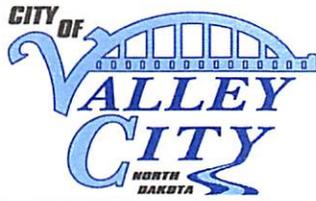
Project, Program, Or Study Name Valley City Permanent Flood Protection - Phase III		
Sponsor(s) City of Valley City		
County Barnes	City Valley City	Township/Range/Section T140N / R58W
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Flood Protection		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input checked="" type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control
<input type="checkbox"/> Dam Safety/EAP	<input type="checkbox"/> Property Acquisition	<input type="checkbox"/> Other
Are Connections Of New Rural Customers Located Within The Extra-Territorial Jurisdiction Of Municipality? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Jurisdictions/Stakeholders Involved City of Valley City		
Description Of Problem Or Need And How Project Addresses That Problem Or Need Valley City sits along the Sheyenne River. During the spring, the river swells from snow melt. During the spring of 2009, Valley City encountered a record flood only to repeat it with a near record flood in the spring of 2011. A considerable amount of resources are expended to combat the rising waters. The proposed project would mitigate these expenses while protect the Sanitary Master Lift Station. (see attached letter for recent information)		
Has Feasibility Study Been Completed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone A Citywide Planning Report was finalized in 2017. The project has been presented at 7 neighborhood meetings in 2015/2016 in addition to the meetings regarding Phase 1 in 2013/14.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2017-2019 7/1/17-6/30/19	2019-2021 7/1/19-6/30/21	Beyond 7/1/21
Federal	\$	\$	\$	\$
State Water Commission	\$ 113,000,000.00	\$ 2,059,929.00	\$ 11,260,000.00	\$ 66,740,000.00
Other State	\$	\$	\$	\$
Local	\$ 30,000,000.00	\$ 537,795.00	\$ 2,790,000.00	\$ 16,210,000.00
Total	\$ 143,000,000.00	\$ 2,597,724.00	\$ 14,050,000.00	\$ 82,950,000.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied None				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Phase I: Complete; Phase II: Under Construction (60% Complete, to be completed July 2019); Phase III: Bid late 2018/early 2019 (Construction in 2019); Phase IV: 2020 Construction; All Phases: Complete by 2030				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By David Schelkoph			Date August 28, 2018	
Address PO Box 390		City Valley City	State ND	ZIP Code 58072
Telephone Number (701) 845-1700		Engineer Telephone Number (701) 845-9446		
Sponsor Email dschelkoph@valleycity.us		Engineer Email chad.petersen@kljeng.com		
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 08/28/18	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

City Hall
254 2nd Ave NE
PO Box 390
Valley City, ND 58072



Phone: 701-845-1700
Fax: 701-845-4588
Web: www.valleycity.us

August 28, 2018

North Dakota State Water Commission
ATTN: Cost-Share Program
900 E Boulevard Ave
Bismarck, ND 58505-0850

SCANNED

RECEIVED

SEP - 7 2018

STATE WATER COMMISSION

Re: City of Valley City
Permanent Flood Protection
Cost-Share Request

Dear State Water Commission:

The City of Valley City is requesting funding to move forward with bidding the next phase of Permanent Flood Protection. As discussed in previous meetings and requests, the city of Valley City has experienced numerous flood events in recent years and the proposed flood projects will mitigate these impacts and provide a long term solution to flooding. The proposed request includes the construction aspects of the project.

The proposed Phase III project covers a portion of the areas required to protect the Sanitary Sewer Master Lift Station (see Exhibit 1). This area is smaller but will require specialized construction due to the tight constraints. The project will include floodwalls, utility relocation, and storm sewer. The estimated construction cost for Phase III of permanent flood protection is approximately \$1.9 million. The current funding request includes monies for construction and construction engineering. A previous request in December 2017 included surveying, design engineering, permitting, and geotechnical exploration of the project areas. Attached is a preliminary opinion of cost for the project and the preliminary construction plans. The City is requesting 80% cost-share or \$1,786,179 (State) in grant for construction and construction engineering of the project. This is consistent with cost-share requests for construction costs previously established.

Below is a summary of the cost-share request for construction:

<i>Phase III Flood Protection</i>	<i>Total</i>	<i>State</i>	<i>Local</i>
<i>Construction (80%)</i>	<i>\$1,932,724</i>	<i>\$1,546,179</i>	<i>\$ 386,545</i>
<i>Construction Contingency (80%)</i>	<i>\$ 97,000</i>	<i>\$ 77,600</i>	<i>\$ 19,400</i>
<i>Construction Engineering (80%)</i>	<i>\$ 203,000</i>	<i>\$ 162,400</i>	<i>\$ 40,600</i>
<i>Total</i>	<i>\$2,232,724</i>	<i>\$1,786,179</i>	<i>\$ 446,545</i>

In addition, the City would like to request funding for three additional buyouts (see Exhibit 2) as part of the Phase 4 Buyouts. The additional request is for \$365,000 in funding. The City is requesting 75% cost-share for the property buyouts. Following is a summary of the current and previous asks:

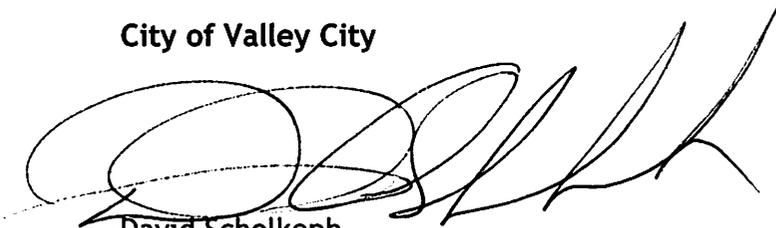
<i>Phase 4 Buyouts</i>	<i>Total</i>	<i>State</i>	<i>Local</i>
<i>Current Ask (75%)</i>	<i>\$ 365,000</i>	<i>\$ 273,750</i>	<i>\$ 91,250</i>
<i>Prior Ask (December 8, 2017)</i>	<i>\$1,677,000</i>	<i>\$1,257,750</i>	<i>\$ 419,250</i>
<i>Total Phase 4 Buyouts</i>	<i>\$2,042,000</i>	<i>\$1,531,500</i>	<i>\$ 510,500</i>

The City of Valley City is also requesting a waiver from the selection process and to continue utilizing our engineer, KLJ for the continuation of this project.

If you have any questions or concerns, please contact me at 701-845-1700.

Sincerely,

City of Valley City



David Schelkoph

City Administrator

Attachments: Cost Estimate, Cost-Share Form, Preliminary Construction Plans

**OPINION OF COST
PERMANENT FLOOD PROTECTION
PHASE III - MASTER LIFT
Valley City, North Dakota**

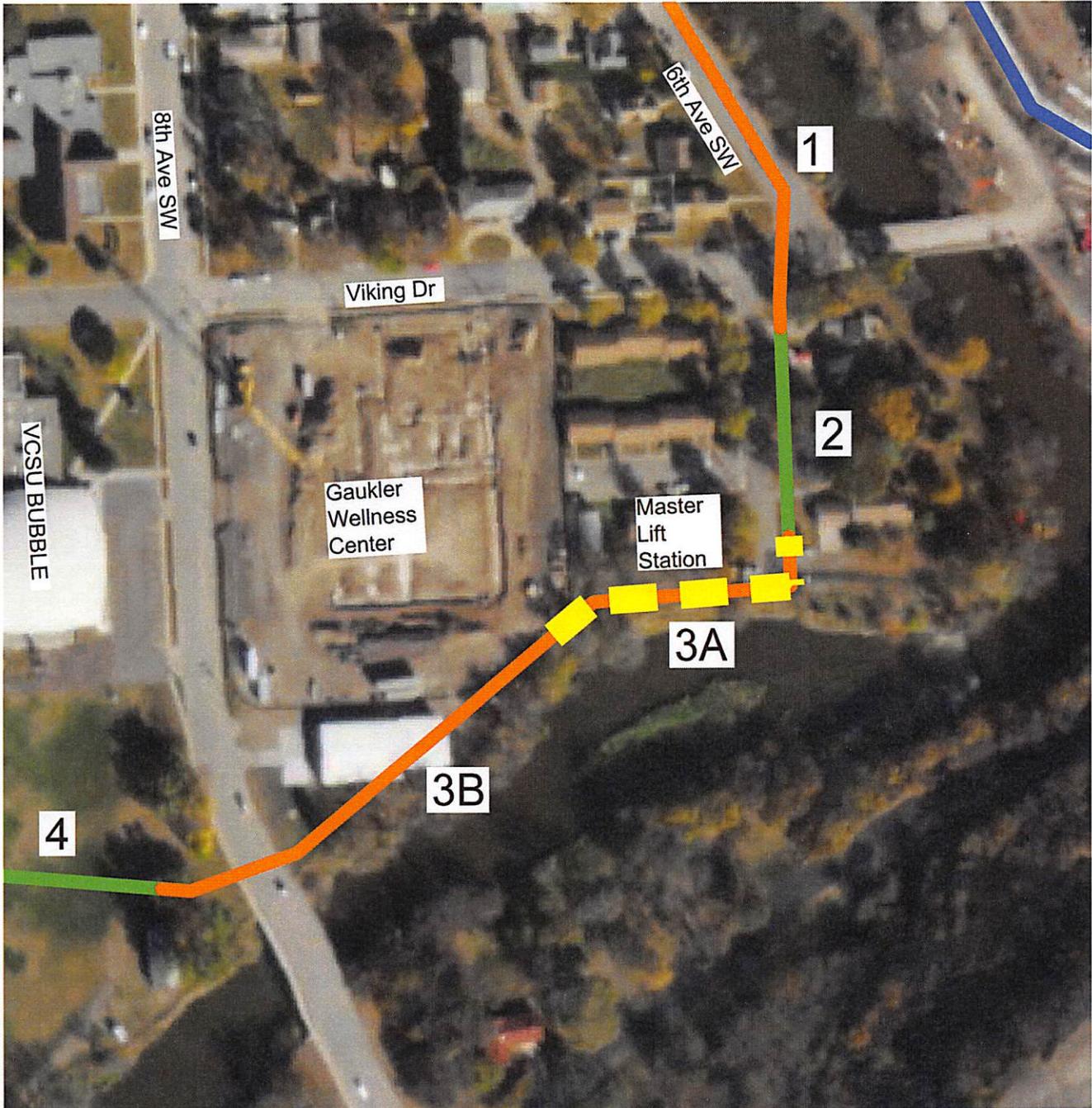
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL	UNIT PRICE	CURRENT AMOUNT
1	CONTRACT BOND	L SUM	1	\$ 15,000.00	\$ 15,000.00
2	CLEARING & GRUBBING	L SUM	1	\$ 10,000.00	\$ 10,000.00
3	COMMON EXCAVATION-WASTE	CY	2,500	\$ 12.00	\$ 30,000.00
4	TOPSOIL	CY	500	\$ 25.00	\$ 12,500.00
5	SELECT BACKFILL	TON	2,000	\$ 30.00	\$ 60,000.00
6	SEED & HYDRAULIC MULCH	SY	2,500	\$ 1.00	\$ 2,500.00
7	RIPRAP-GRADE III	CY	225	\$ 75.00	\$ 16,875.00
8	EROSION CONTROL	L SUM	1	\$ 7,500.00	\$ 7,500.00
9	INSTALL COFFERDAM	L SUM	1	\$ 150,000.00	\$ 150,000.00
10	REMOVE COFFERDAM	L SUM	1	\$ 50,000.00	\$ 50,000.00
11	MOBILIZATION	L SUM	1	\$ 100,000.00	\$ 100,000.00
12	TRAFFIC CONTROL	L SUM	1	\$ 2,500.00	\$ 2,500.00
13	STORM SEWER MODIFICATIONS	LF	100	\$ 150.00	\$ 15,000.00
14	SANITARY SEWER MODIFICATIONS	LF	500	\$ 75.00	\$ 37,500.00
15	PRECAST CAPS	LF	353	\$ 200.00	\$ 70,600.00
16	3' FLOODWALL	SF	30	\$ 80.00	\$ 2,400.00
17	9' FLOODWALL	SF	187	\$ 100.00	\$ 18,700.00
18	13.5' FLOODWALL	SF	1,247	\$ 112.00	\$ 139,664.00
19	16.5' FLOODWALL	SF	3,797	\$ 115.00	\$ 436,655.00
20	SHEET PILE PZC 13	SF	5,464	\$ 35.00	\$ 191,240.00
21	SHEET PILE PZC 41	SF	529	\$ 50.00	\$ 26,450.00
22	STEEL PILE HP 14X73	LF	675	\$ 130.00	\$ 87,750.00
23	STEEL PILE HP 14X102	LF	1,710	\$ 150.00	\$ 256,500.00
24	SMOOTH FORM FINISH & FORMLINER	SFF	5,231	\$ 10.00	\$ 52,310.00
25	BRICK VENEER	SFF	1,888	\$ 35.00	\$ 66,080.00
26	LIGHTING SYSTEM	EA	1	\$ 75,000.00	\$ 75,000.00

ESTIMATED CONSTRUCTION COST = \$ 1,932,724.00
CONTINGENCY = \$ 97,000.00
CONSTRUCTION ENGINEERING = \$ 203,000.00
TOTAL COST = \$ 2,232,724.00

COST SHARE %	COST SHARE REQUEST
80%	\$ 1,546,179.20
80%	\$ 77,600.00
80%	\$ 162,400.00

\$ 1,786,179.20

8th Avenue District Segment 3A Master Lift Station Map EXHIBIT 1



Segment 1	Specialty Wall	
Segment 2	Clay Levee	
Segment 3A	Specialty Wall (Proposed PFP Phase 3)	
Segment 3B	Specialty Wall	
Segment 4	Clay Levee	



Flood Buyouts Phase 4

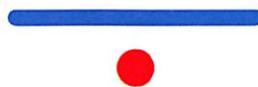
Segment	Address	Buyout Cost	
Downtown 14	218 4th St SW	\$ 110,000.00	
Downtown 14	206 4th St SW	\$ 75,000.00	
Downtown 14	310 2nd Ave SW	\$ 180,000.00	75%
		\$ 365,000.00	\$ 273,750.00

Flood Buyouts Phase 4

EXHIBIT 2



Flood Protection Alignment
Proposed Buyouts





COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (3/2017)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Establishment of Walsh County Drain 30-2				
Sponsor(s) Walsh County Water Resource District				
County Walsh	City Grafton	Township/Range/Section T157N R52W		
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)				
Specific Needs Addressed By The Project, Program, Or Study Agricultural Drainage				
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other				
If Project/Program				
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP	
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition	
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other	
Jurisdictions/Stakeholders Involved Walsh County Water Resource District Assessed Landowners				
Description Of Problem Or Need And How Project Addresses That Problem Or Need The area proposed to be benefitted from Drain 30-2 currently has very poor drainage. Prolonged inundation results in frequent crop damages. Drain 30-2 and the north lateral will provide approximately 5-year drainage capacity for the benefitted area through construction of a channel providing an 8-foot bottom width and 3:1 sideslopes. Additionally, culvert sizes will also be replaced with the appropriate size to facilitate a 5-year design capacity, as well as meet applicable ND Stream Crossing Standards.				
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing	<input checked="" type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing	<input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Ongoing	<input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain ND State Water Commission Drainage Permit				
Have You Been Approved For Any State Permits?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain ND State Water Commission Drainage Permit				
Have You Applied For Any Local Permits?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain				
Have You Been Approved For Any Local Permits?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The project was discussed with the assessed landowners at a public informational meeting November 15, 2016. The hearing was held on August 15, 2017, with ballots due August 31, 2017. The project passed assessment vote.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? N/A - Landowners are favorable to the project.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 320,041.54	\$	\$ 320,041.54	\$
Other State	\$	\$	\$	\$
Local	\$	\$	\$	\$
Total	\$ 826,147.20	\$	\$ 826,147.20	\$
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied N/A				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Solicitation of Contractors - Spring 2018 Utility relocates - Spring 2018 Construction - Spring/Summer/Fall 2018				
Have Assessment Districts Been Formed?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Submitted By Walsh County Water Resource District			Date September 6, 2017	
Address 600 Cooper Avenue		City Grafton	State ND	ZIP Code 58237
Telephone Number 701-352-0081		Sponsor Email wcwrw@nd.gov		Engineer Email zherrmann@houstoneng.com
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 9-6-2017	

MAIL TO:

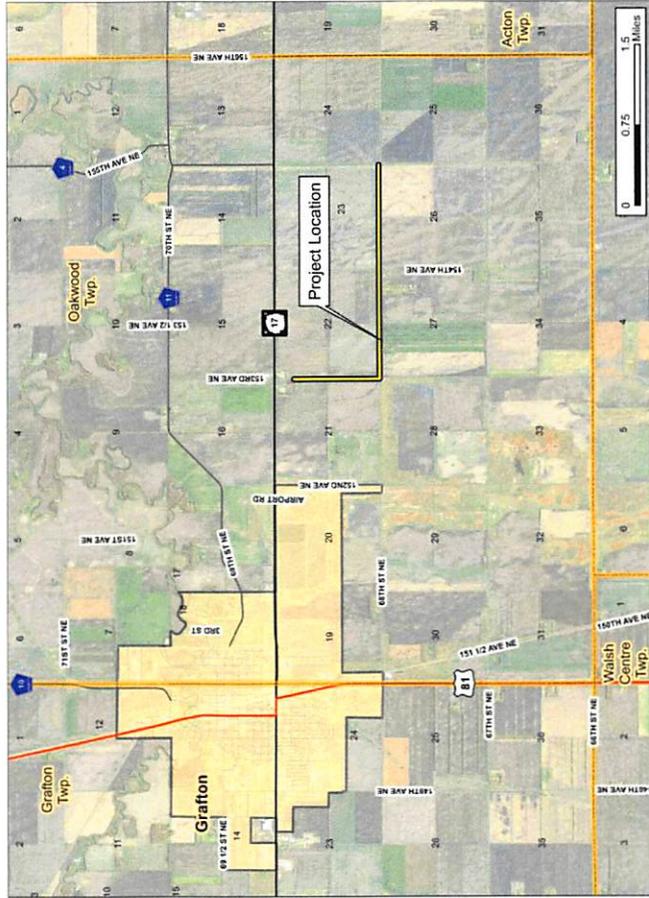
ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**Engineer's Preliminary Cost Estimate
Drain 30-2 Improvements
Walsh County Water Resource District
September 6, 2017**

No.	Item	Unit	Quantity	Unit Price	Total Price	NDSWC Cost Share	Walsh Co. Hwy Dept.	Assessed Cost
1	Common Excavation	CY	45,970	\$ 2.75	\$ 126,417.50	\$ 56,887.88	\$ -	\$ 69,529.63
2	Stripping & Topsoiling	CY	43,590	\$ 1.00	\$ 43,590.00	\$ 19,615.50	\$ -	\$ 23,974.50
3	Seeding & Mulching	AC	24	\$ 600.00	\$ 14,400.00	\$ 6,480.00	\$ -	\$ 7,920.00
4	73" X 55" CMPA	LF	280	\$ 370.00	\$ 103,600.00	\$ 46,620.00	\$ 5,001.92	\$ 51,978.08
5	83" X 57" CMPA	LF	158	\$ 380.00	\$ 60,040.00	\$ 27,018.00	\$ -	\$ 33,022.00
6	49" X 33" CMPA	LF	62	\$ 300.00	\$ 18,600.00	\$ 8,370.00	\$ -	\$ 10,230.00
7	36" CMP	LF	60	\$ 90.00	\$ 5,400.00	\$ 2,430.00	\$ 739.20	\$ 2,230.80
8	24" CMP	LF	1,206	\$ 65.00	\$ 78,390.00	\$ 35,275.50	\$ 2,056.56	\$ 41,057.94
9	24" Flapgate	EA	23	\$ 250.00	\$ 5,750.00	\$ 2,587.50	\$ -	\$ 3,162.50
10	Remove Pipe All Types and Sizes	LF	434	\$ 15.00	\$ 6,510.00	\$ 2,929.50	\$ -	\$ 3,580.50
11	Riprap ND Grade I	CY	480	\$ 80.00	\$ 38,400.00	\$ 17,280.00	\$ -	\$ 21,120.00
12	Geosynthetic Material Type R1	SY	1,700	\$ 2.50	\$ 4,250.00	\$ 1,912.50	\$ -	\$ 2,337.50
13	Salvage or Replace Aggregate Base Course	CY	220	\$ 30.00	\$ 6,600.00	\$ 2,970.00	\$ -	\$ 3,630.00
14	Traffic Control	LS	1	\$ 2,500.00	\$ 2,500.00	\$ 1,125.00	\$ -	\$ 1,375.00
15	Erosion Control	LS	1	\$ 2,500.00	\$ 2,500.00	\$ 1,125.00	\$ -	\$ 1,375.00
Construction Subtotal					\$ 516,947.50	\$ 232,626.38	\$ 7,797.68	\$ 276,523.45
Contingencies (12%)					\$ 62,033.70	\$ 27,915.17	\$ 935.72	\$ 33,182.81
Total Construction Cost					\$ 578,981.20	\$ 260,541.54	\$ 8,733.40	\$ 309,706.26
	Right-of-Way Aquisition (Fee Title; 21.116 Acres; Est. \$4000/Acre)				\$ 84,464.00	\$ -	\$ -	\$ 84,464.00
	Construction Access (Easement; 21.616 Acres; Est. \$125/Acre)				\$ 2,702.00	\$ -	\$ -	\$ 2,702.00
	Permitting				\$ 5,000.00	\$ -	\$ -	\$ 5,000.00
	Utility Relocates				\$ 40,000.00	\$ 18,000.00	\$ -	\$ 22,000.00
	Pre-Construction Engineering				\$ 80,000.00	\$ 28,000.00	\$ -	\$ 52,000.00
	Construction Engineering				\$ 30,000.00	\$ 13,500.00	\$ -	\$ 16,500.00
	Legal & Administrative				\$ 5,000.00	\$ -	\$ -	\$ 5,000.00
Non-Construction Cost					\$ 247,166.00	\$ 59,500.00	\$ -	\$ 187,666.00
Total Estimated Project Cost					\$ 826,147.20	\$ 320,041.54	\$ 8,733.40	\$ 497,372.26

as of August 9, 2018, pre-construction is no longer 35%, but 45% for rural flood control projects. \$328,042 is the eligible CS amount

PRELIMINARY PLANS (NOT FOR CONSTRUCTION)
FOR
COUNTY DRAIN NO. 30-2 SYSTEM IMPROVEMENTS
WALSH COUNTY WATER RESOURCE DISTRICT
GRAFTON, NORTH DAKOTA
NOVEMBER, 2016



INDEX OF DRAWINGS:

- SHT. 1 COVER SHEET
- SHT. 2 LOCATION MAP
- SHT. 3-4 DRAIN 30-2 PLAN AND PROFILE
- SHT. 5 NORTH LATERAL PLAN AND PROFILE
- SHT. 6 ROCK DROP DETAIL
- SHT. 7-10 CULVERT RIPRAP DETAILS
- SHT. 11-12 CULVERT INSTALLATION DETAILS
- SHT. 13-14 TYPICAL SECTIONS
- SHT. 15-16 TYPICAL SIDE INLET SECTIONS
- SHT. 17-19 DRAIN JOINT CROSS SECTIONS
- SHT. 20 NORTH LATERAL CROSS SECTIONS

<p style="text-align: center;">ENGINEER'S CERTIFICATE</p> <p>I, ZACHARY O. HERRMANN, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH DAKOTA, HEREBY CERTIFY THAT THE WALSH COUNTY DRAIN NO. 30-2 IMPROVEMENTS, GRAFTON, NORTH DAKOTA, WERE PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF.</p>	<p>This document is preliminary and not for construction or implementation purposes.</p>
<p>ZACHARY O. HERRMANN, PE REGISTERED PROFESSIONAL ENGINEER NORTH DAKOTA REGISTRATION NO. PE-8405</p>	<p>DATE: _____</p>





North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3686 • INTERNET <http://swc.nd.gov>

MEMORANDUM

TO: Governor John Hoeven
Members of the State Water Commission

FROM:  Dale L. Frink, State Engineer

SUBJECT: NDSWC Cost-Share Participation Request [SWC No. 1921]
2009 Construction of Harmon Lake (Square Butte Dam No. 6) Recreational Facility

DATE: March 11, 2009

In their correspondence received March 1, 2009, the Morton County Water Resource District requested state cost participation for the construction of the Harmon Lake Recreational Facility. The Harmon Lake recreation area was incorporated into the Square Butte Dam No. 6 floodwater control project in the mid 1990's to address the lack of recreational facilities in the area.

The original work plan for Square Butte Creek Watershed was completed in 1969 and included Dam No. 6 as a single purpose floodwater retention dam. A supplemental work plan and environmental assessment was completed in 1995 outlining the proposed change of Dam No. 6 to a multi-purpose dam to provide recreational opportunities, flood control, watershed protection, and wildlife mitigation. Recreational opportunities created at Harmon Lake will include camping, fishing, swimming, horseback riding, cross-country skiing, biking, and hiking.

The site is located in Morton County along State Highway 1806 approximately nine miles north of Mandan, North Dakota and just south of County Road 140. It contains a total of approximately 1,040 acres in Sections 13, 14, and 24 in T140N-R82W and as well as parts of Sections 18 and 19 in T140N-R82 West. The dam and recreation area will be located at the lower end of Otter Creek, a major tributary to Square Butte Creek.

Construction of the flood control dam structure was completed during the fall of 2007 in cooperation with the NRCS, NDSWC, and the District. Additional support was provided from the Oliver County Water Resource District, the City of Mandan, and ND Game and Fish Department.

During the construction of the dam structure parts of the recreational features were incorporated including two sand beaches, a boat ramp and various rock fishing piers and sunken fish islands. Next is to complete the day-use and overnight services; water access for fishing, boats, canoes, and swimming; park manager and maintenance areas, horseback riding and cross-country skiing amenities; entire trail system; interpretive signage and

DLF/CM 1921

SWC Meeting March 23, 2009

JOHN HOEVEN, GOVERNOR
CHAIRMAN

DALE L. FRINK
SECRETARY AND STATE ENGINEER

*Agenda F3)
March 23, 2009
Approved. AS
Commander*

sites; facility nursery development; sewer, water, and electrical utilities; interior road system and parking areas; picnic shelters, restrooms, and bathhouse; firepits, picnic table, and playground equipment; and an irrigation system.

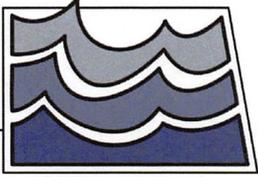
The anticipated spring drainage is predicted to fill the lake during the spring and early summer of 2009. The ND Game and Fish Department has committed to stocking the dam with fish as soon as water levels reach an appropriate elevation. Originally, the recreational features were proposed to be phased in over a period of three years but with the current availability of "stimulus funding", the time line for the recreational features has been revised to two years (2009 and 2010)

The estimated total cost of the project is \$6,300,000, of which \$2,807,198 is considered eligible for state cost-share participation as a recreation project at 33.33% for an amount not to exceed \$935,639 in state funds. The ineligible amount of \$3,492,802 is attributable to the 50% paid for by NRCS (\$2,807,198): 100% of the manager's residence (\$62,500); the equestrian facilities (\$48,255); and the day-use multi-purpose building and paved lot (\$574,850). Those costs determined ineligible by NRCS where also determined to be ineligible by the State Water Commission.

The general area development (entrance building, manger's residence, maintenance shop, and utilities) subtotals \$1,122,215; road work subtotals \$725,971; the boat ramp and fishing areas subtotal \$108,870; the day-use area (multi-use building, shelters, playground, etc.) subtotals \$827,844; swimming beach subtotals \$407,735; camping areas subtotals \$879,669; equestrian area subtotals \$48,255; multi-use trails subtotals \$373,297; and contingencies (inflation, fuel costs, uncertain economy, interest, etc.) at \$1,806,144

NRCS is paying for 50% of the total project cost less the manager's residence (\$62,500), the equestrian facilities (\$48,255), and the day-use multi-purpose building and paved lot (\$574,850) for an amount to equal \$2,807,198. Although not detailed as a project cost, NRCS will be contributing 100% of the engineering and expenses. The local (District) estimated cost of \$3,492,802 is 100% of the amounts to construct the manager's residence, the equestrian facilities, the day-use multi-purpose building and paved lot, and 50% of the other features. NRCS will be contributing \$2,807,198 of the project's cost and the State Water Commission will be contributing \$935,639, leaving a balance of \$2,557,163 to be funded by the District. Project administration is being handled by NRCS and no legal or additional right-of-way costs are expected to be incurred.

I recommend the State Water Commission approve this request from the Morton County Water Resource District for state cost participation in the District's 2009 Harmon Lake Recreational Facility Construction Project, at an amount not to exceed \$935,639 from the funds appropriated to the State Water Commission in the 2007-2009 biennium. This approval is subject to the recommendation contained herein and availability of funds.



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 • FAX (701) 328-3696 • <http://swc.nd.gov>

September 1, 2017

Wade Bachmeier, Chairman
Morton County Water Resource District
P.O. Box 176
Mandan, ND 58554

RE: Square Butte Dam No. 6 (Harmon Lake) Recreation Facility

Dear Chairman Bachmeier:

I am writing to inform you of the State Water Commission's June 22, 2017 decision to not carry over obligated but un-spent cost share funding for the Square Butte Dam No. 6 (Harmon Lake) Recreation Facility to the 2017-2019 biennium. Any costs incurred through June 30, 2017 can still be submitted for reimbursement. The water resource district may request new funding for future improvements for consideration by the commission.

Sincerely,

Craig Odenbach, P.E., CFM
Director, Water Development Division

CO:BN:ph/1921

LAWYERS
BAIR LAW FIRM

Thomas B Bair
Patrick T Bair

210 First Avenue NW, P.O. Box 100
Mandan, ND 58554-0100
Telephone 701-663-6568
Fax: 701-663-6951

tbair@bairlawfirm.com
pbair@bairlawfirm.com

May 3, 2018

VIA US MAIL and EMAIL TO: bnangare@nd.gov

Beth Nangare
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, ND 58505-0850

RE: Morton County Water Resource District
Harmon Lake Recreation Area
SWC Project No. 1921
Request No. 10

Dear Ms. Nangare,

This is a request for cost-share pursuant to the April 2009 Agreement for Cost Participation (Harmon Lake Recreation Facility) between the Morton County Water Resource District and the State Water Commission. By letter from Craig Odenbach dated September 1, 2017, the Morton County Water Resource District was informed that "Any costs incurred through June 30, 2017 can still be submitted for reimbursement."

In the fall of 2012, the Morton County Highway Department contracted with Mariner Construction, Inc. for paving projects throughout Morton County. One of the projects was the paving of the entrance road and interior road at the Harmon Lake Recreation Area. It was agreed between the Highway Department and the Water Resource District that the Highway Department would pay Mariner and then invoice the Water Resource District for reimbursement. The work was completed in October of 2012. Despite earlier request, the County Highway Department did not send an invoice to the Water Resource District until April of 2018.

Since the work was completed prior to June 30, 2017, it is the position of the Water Resource District that the State Water Commission is obligated to pay one-third of the cost of this project. Enclosed are invoices and proof of payment in the amount of \$279,629.19. The Morton County Water Resource District requests reimbursement in the amount of \$93,209.73.

May 3, 2018
Page 2

If you have any questions or concerns, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas B. Bair', with a stylized flourish at the end.

Thomas B. Bair
c: MCWRD
Enclosures

RECEIVED
JUL - 3 2018
STATE WATER COMMISSION

Thomas B. Bair
Patrick T. Bair

LAWYERS
BAIR LAW FIRM

210 First Avenue NW, P.O. Box 100
Mandan, ND 58554-0100
Telephone: 701-663-6568
Fax: 701-663-6951

tbair@bairlawfirm.com
pbair@bairlawfirm.com

July 2, 2018

VIA US MAIL and EMAIL TO: bnangare@nd.gov

Beth Nangare
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, ND 58505-0850

RE: Morton County Water Resource District
Harmon Lake Recreation Area
SWC Project No. 1921
Request No. 11

Dear Ms. Nangare,

This is a request for cost-share for the Harmon Lake Recreation Facility. By letter from Craig Odenbach dated September 1, 2017, the Morton County Water Resource District was informed that the State Water Commission would not carry over obligated but unspent cost share funding for Square Butte Dam No. 6. The letter did say the water resource district may request new finding for future improvements for consideration by the commission. This is such a request.

In 2017, the water resource district purchased a double launch kayak launching dock and moved 27 trees from its nursery to its campground. The water resource district has been growing trees in its on-site nursery at Harmon Lake for many years. The intent has always been to transplant those trees to appropriate locations when they matured. A number of the trees have done very well and it was decided that last year was the time to move 27 of them. In addition to moving the trees, \$1,180 was spent for mulch and straps for the trees. The water resource district paid 50% of this cost, or \$590. (The balance was paid by the Morton County Park District.)

In 2018, the water resource district has purchased materials to build a fence around the parking lot for the beach area.

July 2, 2018
Page 2

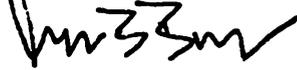
The costs incurred for the above improvements are as follows:

Trees on the Move -- move 27 mature trees	\$5,400.00
Morton County Parks -- tree mulch and straps	\$590.00
ABC Boat Docks LLC - double kayak launch	\$13,853.06
Farmers Lumber -- fencing materials	\$8,472.00
Fastenal - fencing materials	\$701.86
Total spent	<u>\$29,016.92</u>
33.33% Requested Reimbursement	\$9,672.31

Enclosed are invoices and verification of payment. The requested reimbursement of 33.33% is the amount of \$9,672.31.

If you have any questions or concerns, please contact me.

Sincerely,



Thomas B. Bair
c: MCWRD
Enclosures

Morton County Water Resource District

PO. Box 176
MANDAN, NORTH DAKOTA 58554
701-663-8549

RECEIVED
SEP - 4 2018
STATE WATER COMMISSION

August 31, 2018

Garland Erbele, P.E., State Engineer
ND State Water Commission
900 E. Boulevard Ave
Bismarck, ND 58505

Re: Square Butte Creek Multiple-Purpose Dam Site #6; aka Harmon Lake
Morton County Water Resource District
State Water Commission Project No. 1921

Dear Mr. Erbele:

I serve as Chairman of the Morton County Water Resource District Board of Managers. As you know, by letter dated May 3, 2018, the District requested cost-share funding from the Commission for the Square Butte Dam No. 6 (Harmon Lake) in the amount of \$93,209.73. You and I and others discussed this request at your office on July 18, 2018. At that time the request was not approved. At its meeting of July 25, 2018, the District passed a motion to request that this issue be placed on the agenda of the State Water Commission meeting scheduled for October 11, 2018. A copy of the original request is enclosed.

A brief history of the cost share for this project is in order. On March 23, 2009, the Commission approved an Agreement for Cost Participation for construction of the recreation phase of Harmon Lake and thereby committed \$935,639 to the project. At the time of the request, it was expected that the federal government would contribute \$3,100,000 to the project through the Small Watershed Program administered by the Natural Resources Conservation Service. However, no federal funding has ever been provided for the recreation phase of Harmon Lake.

A total of \$1,918,395 has been invested to date in the recreation facility at Harmon Lake. The Commission has provided cost share funding of approximately \$250,000. At its meeting of February 24, 2016, the District considered the fact that a large share of the original \$935,639 committed to the project by the Commission would likely not be spent for a considerable period of time, due to the continued lack of federal funding. The District unanimously passed a motion at that time unilaterally releasing \$500,000 from the Commission's commitment to the project. Then, in 2017, the Commission

Square Butte Creek Multiple-Purpose Dam Site #6
August 31, 2018
Page 2

decided to not carry over obligated but un-spent cost share funding for this project, thereby ending the Commission's obligations under the agreement.

However and as fully set out in the enclosed funding request of May 3, 2018, the work which is the subject of the request was actually completed in the fall of 2012. Since the work was completed prior to the termination of the cost share contract, it is the position of the Water Resource District that the State Water Commission is obligated to pay one-third of its cost. In a letter from Craig Odenbach dated September 1, 2017, the Morton County Water Resource District was informed that "Any costs incurred through June 30, 2017 can still be submitted for reimbursement." That is the purpose of this request.

The Morton County Water Resource District respectfully requests reimbursement in the amount of \$93,209.73. Thank you for your consideration.

Sincerely,

MORTON COUNTY WATER RESOURCE DISTRICT



Wade M. Bachmeier, Chairman
Morton County Water Resource District Board

Enclosures

cc: MCWRD, Ron Sando

**WALSH COUNTY
WATER RESOURCE DISTRICT**

RECEIVED
AUG 24 2018
STATE WATER COMMISSION

600 Cooper Avenue
Grafton, ND 58237

Phone: (701) 352-0081
Email: wcwrb@nd.gov

August 21, 2018

ND State Water Commission
900 E Boulevard Ave. Dept. 770
Bismarck, ND 58505-0850

**Subject: Forest River Dam No. 1 (Matejcek Dam) Rehabilitation
Proposal for ND State Water Commission Cost Share**

Dear Commission Members;

The Walsh County Water Resource District (WCWRD) is requesting cost share from the ND State Water Commission for the rehabilitation of Forest River Dam No. 1, also known as Matejcek Dam. Matejcek Dam is in Walsh County, and designated as a high hazard dam. Recent review of the structure indicated Dam Safety deficiencies related to hydrologic capacity, structural issues with the principal spillway, and potential geotechnical concerns with the earthen embankment. These issues were preliminarily reviewed and documented in a Dam Assessment Report completed by NRCS in 2010 (amended in 2011). The Dam Assessment Report is attached to this cost share application.

The WCWRD worked with the NRCS to secure \$500,000 from the national Watershed Rehabilitation Program to begin detailed planning and design of rehabilitation of Matejcek Dam. The funds requested in this application to the ND State Water Commission are to complete an NRCS agency required Watershed Rehabilitation Plan. This Planning Effort includes an in-depth review of issues with the current dam, and development of alternatives to ensure Matejcek Dam meets current Dam Safety requirements.

Total costs in this application are \$873,000, of which NRCS is providing \$500,000. The remaining non-federal portion of the project is \$373,000. We are requesting 75% through the ND State Water Commission, or **\$279,750**. The remaining would be paid locally. An itemized cost estimate and the NRCS Statement of Work are both attached to this application.

If you have any questions, please do not hesitate to contact our office at (701) 352-0081.

Sincerely,

*Daryl Campbell, Chairman
Walsh County Water Resource District*

Daryl Campbell, Chairman

*Board Members
Albin Jallo, Vice Chairman*

Larry Tanke, Mgr



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (8/2018)

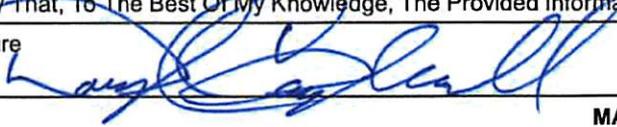


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Forest River Dam No. 1 (Matejcek Dam) Rehabilitation		
Sponsor(s) Walsh County Water Resource District		
County Walsh	City Rural	Township/Range/Section Section 23 (T155N, R57W)
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Rehabilitation measures needed to address Dam Safety concerns with Matejcek Dam		
If Study, What Type <input type="checkbox"/> Water Supply <input checked="" type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input checked="" type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization <input checked="" type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other
Are Connections Of New Rural Customers Located Within The Extra-Territorial Jurisdiction Of Municipality? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Jurisdictions/Stakeholders Involved Walsh County Water Resource District, Local/State/Federal Agencies, and Public		
Description Of Problem Or Need And How Project Addresses That Problem Or Need Matejcek Dam is a high hazard structure that currently does not meet current Dam Safety Standards. A Dam Assessment Report was completed by the NRCS in November 2010 that provided a preliminary review of the structure to establish potential issues with the dam. This Assessment Report recommended the dam be rehabilitated to NRCS and ND State Water Commission Dam Design standards (attached to this application). Funds requested in this application will complete a Watershed Rehabilitation Plan, as required through Public Law 83-566. This planning effort will investigate geologic, structural, and hydrologic concerns with the Dam, and develop alternatives to address the concerns. Environmental and societal concerns will be evaluated to develop a cost effective, permit-able alternative to be carried forward. The existing dam provides peak flow reduction to a flood prone area downstream, including public infrastructure, cropland, rural residents, and the communities of Forest River, ND and Minto, ND.		
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain Forest River Dam No. 1 was originally constructed under permit 01170. Additional permitting would be required.				
Have You Been Approved For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain Forest River Dam No. 1 was originally constructed under permit 01170. Additional permitting would be required.				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Matejcek Dam is within the watershed of the on-going Forest River Watershed Planning area, and has had significant public input with regard to watershed issues in the region.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? N/A - The Watershed Rehabilitation Plan will identify issues, and develop alternatives to reduce concerns.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2017-2019 7/1/17-6/30/19	2019-2021 7/1/19-6/30/21	Beyond 7/1/21
Federal	\$ 500,000.00	\$ 477,400.00	\$ 22,600.00	\$
State Water Commission	\$ 279,750.00	\$ 267,150.00	\$ 12,600.00	\$
Other State	\$	\$	\$	\$
Local	\$ 93,250.00	\$ 89,050.00	\$ 4,200.00	\$
Total	\$ 873,000.00	\$ 833,600.00	\$ 39,400.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied None.				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Complete Watershed Rehabilitation Plan (end of Biennium)				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Walsh County Water Resource District			Date August 21, 2018	
Address 600 Cooper Avenue		City Grafton	State ND	ZIP Code 58237
Telephone Number (701) 352-0081		Engineer Telephone Number (701) 499-2054		
Sponsor Email wcwrb@nd.gov		Engineer Email zherrmann@houstoneng.com		
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 8/21/18	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

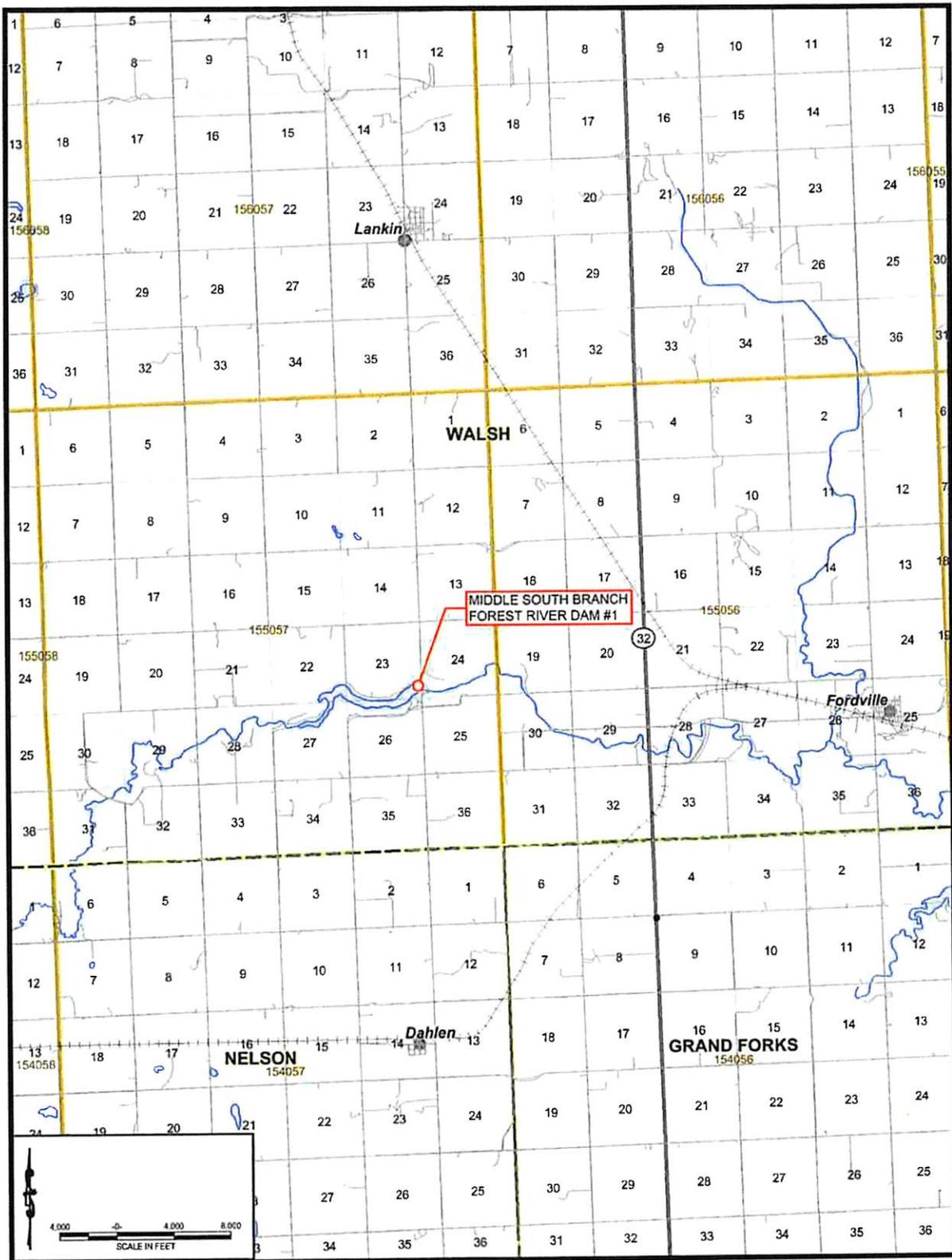


Figure 1. Location Map of Middle South Branch Forest River Dam #1

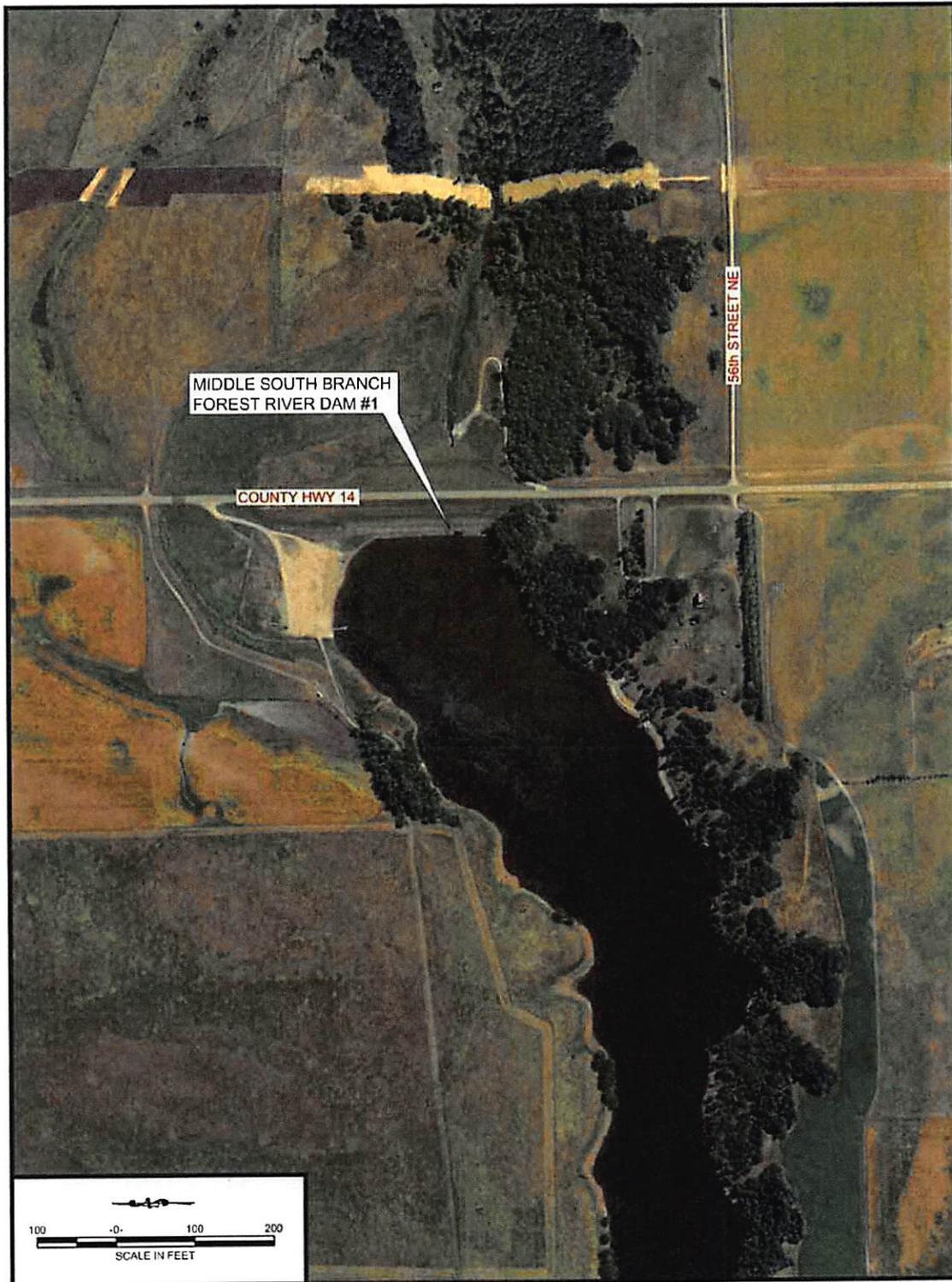


Figure 2. Aerial Photo of Middle South Branch Forest River Dam #1

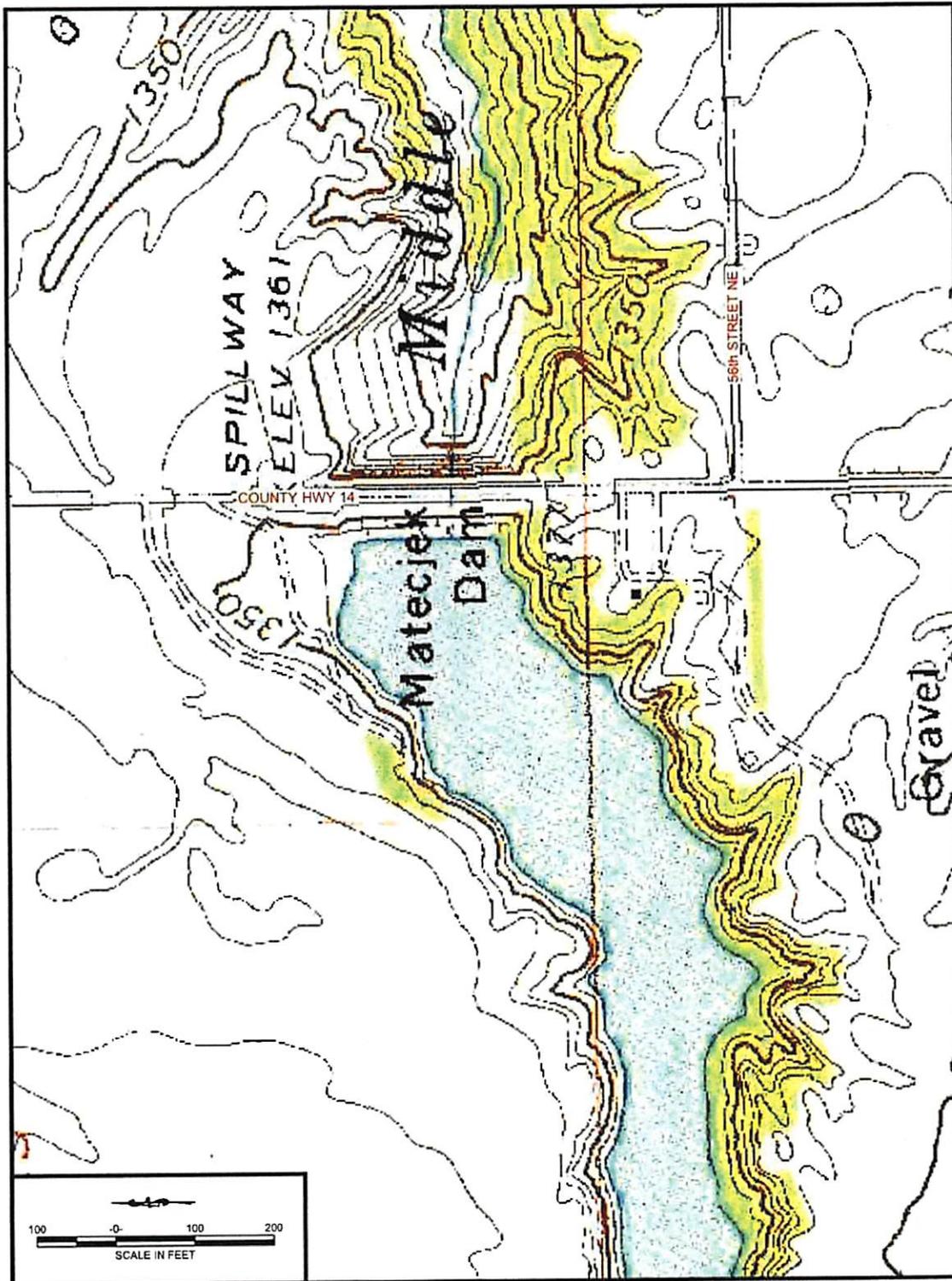
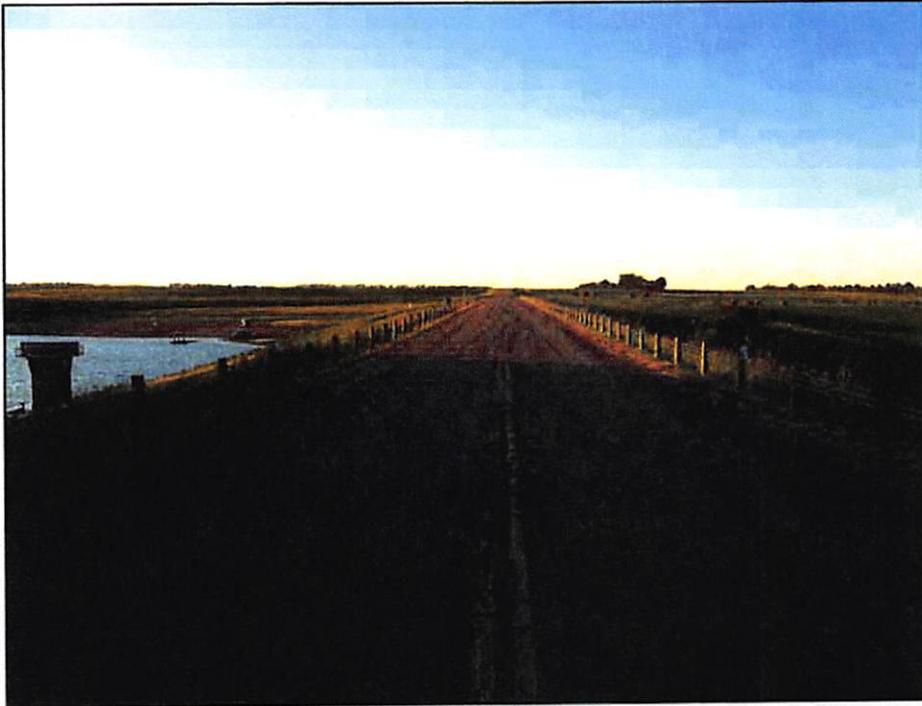
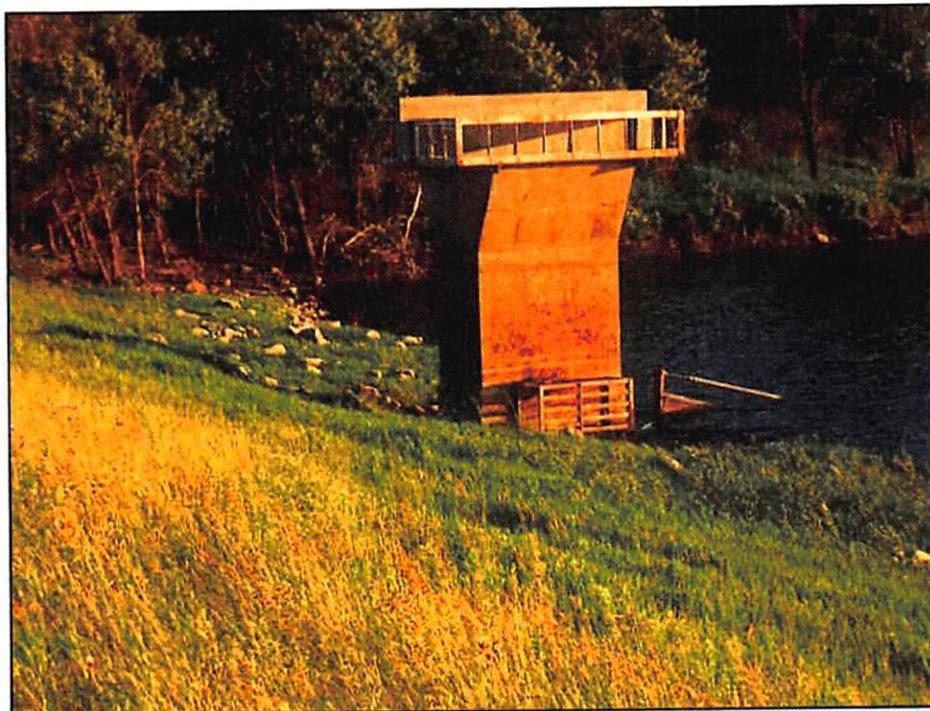


Figure 3. USGS Quadrangle of Middle South Branch Forest River Dam #1

GENERAL



1. General overview of dam across crest from right abutment.



2. Principal spillway riser structure.

GENERAL



3. Upstream embankment slope.

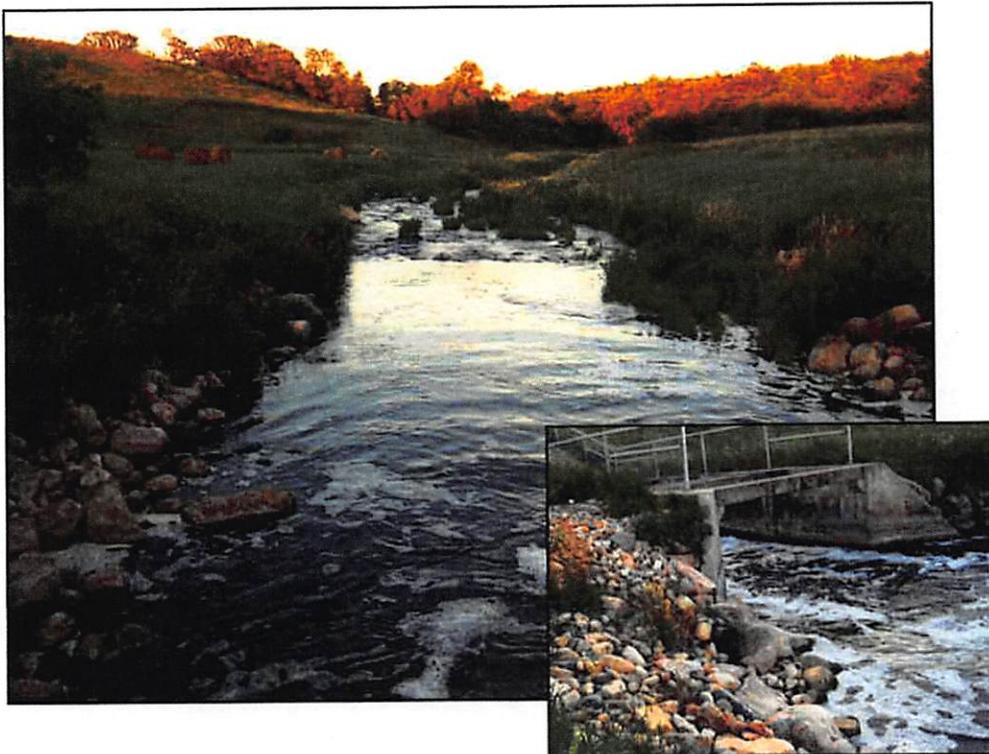


4. Downstream embankment slope.

GENERAL

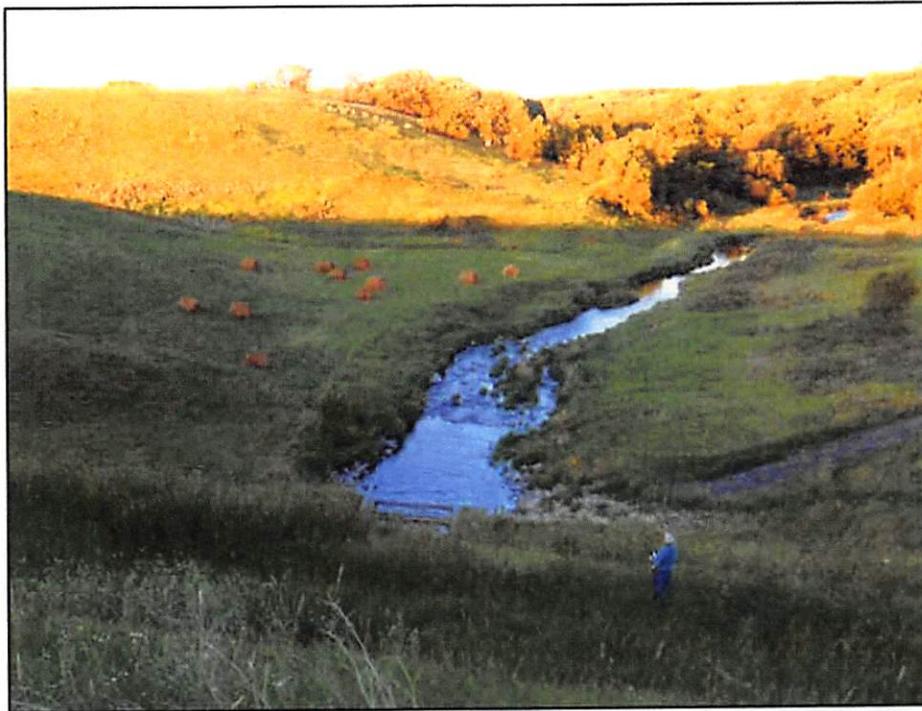


5. Principal spillway box culvert outlet and SAF stilling basin.



6. Downstream channel and SAF stilling basin outlet (inset).

OBSERVED DEFICIENCIES



7. Hay bales at downstream end of auxiliary spillway.



8. Hay bales on and around crest of auxiliary spillway and upstream of the crest.

OBSERVED DEFICIENCIES



9. Vehicle trails on downstream embankment slope.



10. Vehicle trails on upstream embankment slope.

OBSERVED DEFICIENCIES



11. Wet area with standing water near centerline of auxiliary spillway upstream of crest along roadway.



12. Numerous pocket gopher burrows observed.

OBSERVED DEFICIENCIES



13. Approximate 1½-inch gap at E.J. 20 of stilling basin.

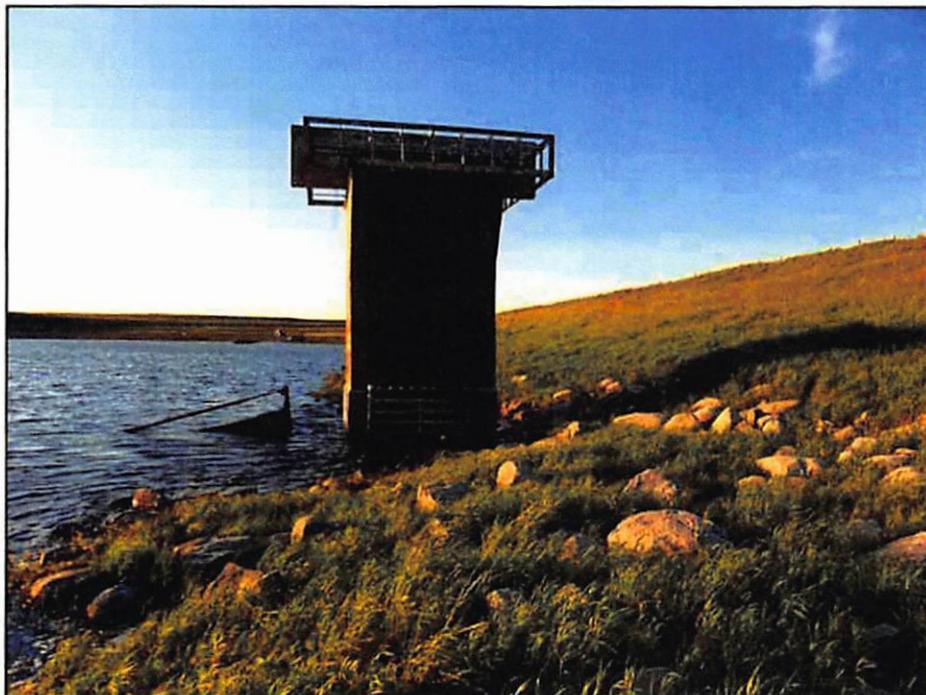


14. Spall at joint E.J. 19 of SAF stilling basin and cracking at handrail post upstream of joint. Approximate 2-inch gap observed.

OBSERVED DEFICIENCIES



15. Dense vegetation around auxiliary drain outlet near bend in downstream access road.



16. Level berm at El. 1334.8 feet does not have a uniform vertical alignment in the vicinity of the riser structure compared to what is shown on the 1964 As-built Plans.



August 16, 2018

Sargent County Water Resource District

355 Main Street S, Suite 1
Forman ND 58032
Phone: (701) 724-6241 Ext 115
FAX: (701) 724-6244

Lucas Siemieniewski, Geneseo
Bruce Speich, Milnor
Michael Wyum, Rutland
Todd Stein, Cogswell
Roger Zetocha, Stirum

RECEIVED
AUG 20 2018

STATE WATER COMMISSION

Garland Erbele, PE
State Engineer
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, ND 58505-0850

Dear Garland:

RE: Brummond-Lubke Dam Improvements (Tewaukon Dam WS-T-1-A)
Sargent County Water Resources District

Brummond-Lubke Dam, located on a tributary of the Wild Rice River in Weber Township of Sargent County, is owned by the Sargent County Water Resource District (WRD). The dam was originally built in 1963 and permitted by the North Dakota State Water Commission (SWC) under Water Permit No. 01429. The dam has a storage volume of 2,639 acre-feet at max pool elevation. Since it was constructed, the dam has served as flood protection for properties along the tributary and the Wild Rice River.

The purpose of the proposed project is to provide erosion protection on the dam embankment along the upstream side, which has eroded over time due to wave action of the permanent pool of water. As shown in the attached plans, the erosion is prevalent in the first four feet above the design bench elevation. These eroded areas pose a risk to the stability of the dam embankment and make it susceptible to failure. The WRD is proposing to install a line of riprap along the upstream dam face to protect the embankment from future erosion. The riprap will begin at the existing bench elevation and will continue up the face of the dam six feet. Placing riprap in this area will reduce the risk of erosion in the future during normal ponding within the pool as well as during runoff events when the pool rises.

With this letter and enclosed documents, the WRD respectfully requests that the SWC approve cost-share assistance of 75% of the total cost under the Dam Safety cost share policy.

Enclosed is the cost-share request form, a detailed cost estimate and a set of preliminary plans for the proposed project. If you have any questions, please feel free to contact me or Josh Hassell, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

Sargent County Water Resource District



Sherry Hosford
Secretary-Treasurer

Enclosures



COST-SHARE REQUEST FORM
 NORTH DAKOTA STATE WATER COMMISSION
 DEVELOPMENT DIVISION
 SFN 60439 (6/2018)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name Brummond-Lubke Dam Improvements (Tewaukon Dam WS-T-1-A)			
Sponsor(s) Sargent County Water Resource District (WRD)			
County Sargent County	City N/A	Township/Range/Section Section 35 T-129-N R-55-W	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Embankment protection of upstream side of Brummond-Lubke Dam by the installation of riprap.			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input checked="" type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Sargent County WRD			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Brummond-Lubke Dam has experienced erosion on the upstream side of its embankment due to the wave runoff being generated by wind. These eroded areas pose a risk to the stability of the dam embankment and make it susceptible to failure. The Sargent County WRD has proposed to protect this embankment by filling in the eroded areas and placing riprap along the embankment of the dam. The placement of riprap will reduce the risk of erosion in the future.			
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain Application/Notification to Construct or Modify a Dam will be submitted upon completion of final engineering plans.				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The Brummond-Lubke Dam Improvement project has been discussed at the Sargent County WRD meetings, and preliminary engineering drawings have been developed (enclosed with this application).				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? We do not see any obstacles to the project at this time.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2017-2019 7/1/17-6/30/19	2019-2021 7/1/19-6/30/21	Beyond 7/1/21
Federal	\$	\$	\$	\$
State Water Commission	\$ 317,111.00	\$ 317,111.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 122,889.00	\$ 122,889.00	\$	\$
Total	\$ 440,000.00	\$ 440,000.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Preliminary engineering is completed. Upon funding approval, the District will finalize engineering plans and specifications and bid the project. Estimated project completion date of summer 2019.				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Sherry Hosford - Secretary-Treasurer; Sargent County WRD			Date	
Address 355 Main St. S Suite 1		City Forman	State ND	ZIP Code 58032-4149
Telephone Number (701) 724-6241		Engineer Telephone Number (701) 499-5857		
Sponsor Email Sherry.hosford@co.sargent.nd.us		Engineer Email CGross@mooreengineeringinc.com		
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature <i>Sherry Hosford</i>			Date <i>8-16-18</i>	

MAIL TO:

ND State Water Commission • ATTN: Cost-Share Program
900 E Boulevard Ave. • Bismarck, ND 58505-0850

2018 BRUMMOND - LUBKE DAM IMPROVEMENTS (TEWAUKON DAM T-1A)

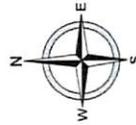
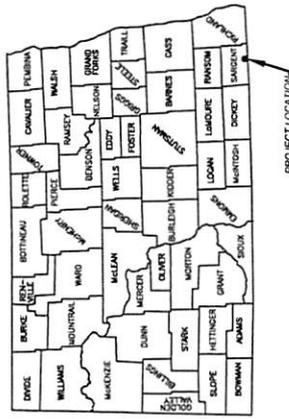


Consulting Engineering • Land Surveying
925 10th Avenue East • Moor Fargu, North Dakota
www.mooreengineeringinc.com

SARGENT COUNTY WATER RESOURCE DISTRICT

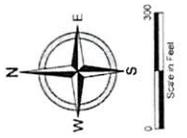
SARGENT COUNTY, NORTH DAKOTA

VICINITY MAP



PROJECT No 20339

PRELIMINARY



PRELIMINARY

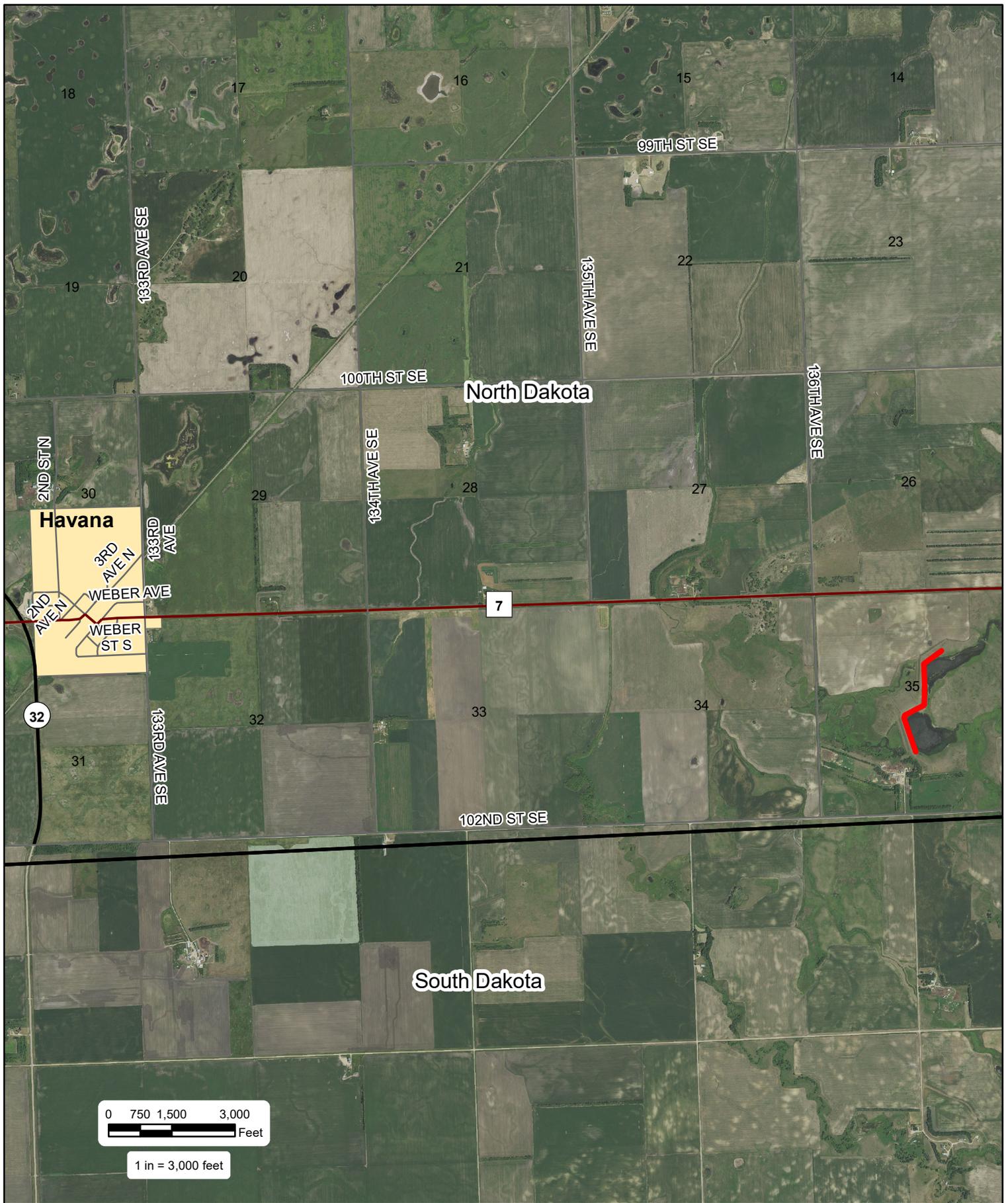


2018 BRUMMOND - LUBKE DAM IMPROVEMENTS (TEWAUKEN T-1A)
 SARGENT COUNTY WATER RESOURCE DISTRICT
 SARGENT COUNTY, NORTH DAKOTA
 PLAN VIEW

DATE	DESCRIPTION
06/28/18	RECORDED
	REVISED
	REVISED
	REVISED
	REVISED
	RECORDED

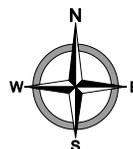
PROJECT No.	2017
MANAGER	CDC
DESIGNER	JOH
CHECKER	RJA
DATE PLOTTED	
BY	

C-201
 SHEET 5 OF 16

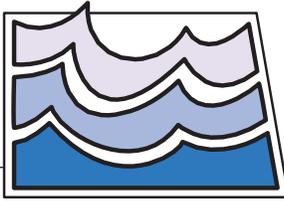


Brummond-Lubke (Tewaukon Dam WS-T-1-A)
Dam Improvements
Sargent County, North Dakota

Created By: GIS Date Created: XX/XX/18 Date Saved: 06/22/18 Date Plotted: NEVER Date Exported: 09/27/18
 Plotted By: joshua.hassell Parcel Date: XXXX/18 Aerial Image: 2017 County NAIP SIDS Elevation Data: Lidar
 Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
 T:\Projects\20300\20339\20339_Image_Clip.mxd



moore
 engineering, inc.



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

MEMORANDUM

TO: Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer/Secretary
SUBJECT: Revision of Probable Maximum Precipitation (PMP) Estimates for North Dakota
DATE: September 13, 2018

Dams in North Dakota, from a dam safety perspective, are designed based on a certain rainfall event flood. Dams whose failure could result in human lives lost are designed to handle the flood resulting from the most severe rainfall event that could be experienced at a particular location. The Probable Maximum Precipitation (PMP) is the greatest depth of precipitation for a given duration that is theoretically possible over a given storm area at a particular geographic location at a certain time of year. North Dakota's dam design standards require the PMP to be used in sizing spillways of dams.

Currently, values for PMP are taken from a 1978 National Weather Service publication entitled *Hydrometeorological Report No. 51, Probable Maximum Precipitation Estimates, United States East of the 105th Meridian* (HMR 51). While HMR 51 utilized best available data at the time of its publication, the existence of an additional 40 years of data and technological advancements position North Dakota to make a meaningful update to enhance the accuracy of this study.

Dams are designed to standards based on the PMP in an effort to prevent water from overtopping the dam during these extreme storm events. National statistics show that overtopping is one of the leading causes of failure of earthen dams, and most dams in North Dakota are earthen structures. As one of the primary goals of the North Dakota dam safety and permitting programs is to reduce the risk to life and property associated with the potential failure of a dam, having the most accurate estimates possible of the PMP is critical.

In addition, the estimate of the PMP is a major driving factor in the size, and associated cost, of a dam's spillway and overall dam height. This is important not just in the design of new dams, but in the rehabilitation of existing dams. Basing the state's dam design standards on the most up-to-date, defensible information empowers the regulator-regulated relationship and promotes enhanced public safety efficiently and responsibly. Dam construction and renovation projects are eligible for North Dakota State Water Commission cost-share participation at a rate of 50-75% of eligible costs. Since the PMP information plays such a critical role in the public safety and economic consideration of constructing or renovating dams, we feel it's imperative to update and revise HMR 51 to reflect the state-of-the-science.

Nationwide, the HMR PMP data is increasingly becoming viewed as out of date. There is no longer a national effort overseeing this matter. However, in recent years a growing number of states have undertaken it either on a statewide or regional basis. Currently, Colorado and New

September 13, 2018

Mexico are jointly engaged in such a project. Arkansas, Louisiana, Mississippi, and Oklahoma are also participating in a joint regional project. Wyoming, Nebraska, Texas, Arizona, Virginia, and Ohio have already completed statewide PMP updates.

In preparation of this funding request being approved, we've identified a PMP Steering Committee (Committee) to help with providing professional expertise and oversight of this study. The Committee is comprised of our NDSU State Climatologist, the Natural Resources Conservation Services, Grand Forks and Bismarck Offices of the National Weather Service, the Omaha Corps of Engineers, and North Dakota State Water Commission (SWC). This Committee would be involved with establishing the parameters of the study, advisory support, and act as a professional peer review board for the study as it progresses. To date, we have received confirmed letters of support (attached) from all Committee members advocating for, and willingness to participate in, the study.

Preliminary discussions with potential contractors indicate a total cost between \$500,000 to \$600,000. Additional funding assistance may be available from the NRCS pending their Fiscal Year 2019 Budget, and final scoping of the study may reduce the overall cost. The estimated duration of the study is projected to be 12-18 months.

If approved, the SWC would release a Request for Qualifications (RFQ) for interested firms to submit their proposals, select a firm, and initiate the start of the study as early as January 2019.

GE:MH:ph/1965



United States Department of Agriculture

Natural Resources
Conservation Service

Bismarck State Office
PO Box 1458
Bismarck, ND
58502-1458

Voice 701.530.2000
Fax 855-813-7556

August 27, 2018

Garland Erbele, P.E.
State Engineer
ND State Water Commission
900 East Boulevard Avenue
Bismarck, ND 58505

RECEIVED
AUG 30 2018
STATE WATER COMMISSION

Dear Mr. Erbele:

I am writing in support of the Probable Maximum Precipitation (PMP) Study for North Dakota, scheduled for discussion at your upcoming NDSWC meeting on October 11, 2018.

The USDA Natural Resources Conservation Service (NRCS) is in full support of the proposal to update the National Weather Service Hydrometeorological Reports currently utilized for PMP determination in North Dakota, on the basis of the last four decades of precipitation data and modern hydrological modeling procedures. I previously offered staff time of ND NRCS employees to assist the ND SWC in a technical advisory capacity for this important effort.

Timely completion of the report will improve the quality, and potentially generate cost savings, on the large number of flood storage structures currently being planned through the joint NRCS, Red River Retention Authority, ND State Water Commission, and individual Water Resource District in sub-watersheds of the Red River Valley. In the planning stage alone, there has been an overall commitment of over \$8 million in taxpayer funds to these projects. The specific Project Sponsors who would benefit from the PMP update include:

- Cass County Joint Water Resource District: Rush River and Upper Maple River Watersheds
- Sargent County Joint Water Resource District: Shortfoot Creek Watershed
- Walsh County Water Resource District: Forest River Watershed
- Park River Joint Water Resource District: North Branch Park River Watershed
- Pembina Water Resource District: Tongue River Watershed
- Richland County Water Resource District: North Branch Antelope Creek Watershed

It is anticipated that planning work for these watershed projects will be completed by the fall of 2019, at which point the Sponsors will be seeking additional funds for final design work of accepted projects. It would be ideal if the PMP Study was completed and ready to utilize at that point in time.

Likewise, this information will be critical to the design of NRCS dam rehabilitation projects. The Walsh County Water Resource District is starting

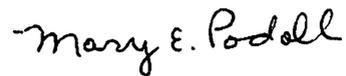
Helping People Help the Land

An Equal Opportunity Provider, Employer, and Lender

planning this fall on a rehabilitation project on Matecjek Dam on the MSB Forest River, with support from the NRCS PL-566 Program. Again, having the updated PMP Study available in the fall of 2019 would ensure that project is efficiently planned and designed. In all likelihood, NRCS and the SWC will end up jointly funding construction, which is expected to be in the range of \$15-20 million. Certainly, the proposed investment in the PMP study will be minor in the scope of this and other large flood control projects in the State.

I appreciate the efforts of the ND State Water Commission in pursuing this important study.

Sincerely,

A handwritten signature in cursive script that reads "Mary E. Podoll".

MARY E. PODOLL
State Conservationist



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE CENTRAL REGION
7220 NW 101st Terrace
Kansas City, Missouri 64153-2317

September 6, 2018

MEMORANDUM FOR: Garland Erbele, ND State Engineer

SUBJECT: NWS support North Dakota PMP Study

The National Weather Service supports the Probable Maximum Precipitation (PMP) Study proposed for the State of North Dakota. PMP is a theoretical concept that is widely used by hydrologists and engineers to arrive at estimates for probable maximum flood (PMF) used in planning, design and risk assessment of a variety of structures such as flood control dams, berms, roadways and bridges. The PMP represents the greatest depth of precipitation for a given duration that is meteorologically possible for a watershed or an area at a particular time of year.

Over time, the data that was included in the last PMP study for North Dakota, has become limited as new methods for assessing extreme precipitation events has evolved with updated technology. The National Weather Service supports an updated PMP study for the State of North Dakota including data on storms that have occurred specifically in North Dakota since the last study in 1978.

Sincerely,

Wendy L. Pearson
Deputy Chief for Hydrologic Services
NOAA's National Weather Service
Central Region Headquarters
Kansas City, MO 64157

Garland Erbele, State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505

September 4, 2018

Dear Mr. Garland Erbele:

I am writing this letter in support of the proposed Probable Maximum Precipitation Study for North Dakota.

The study will provide probable maximum precipitation for all or any drainage basins in North Dakota which is extremely important in terms of estimation of probable runoffs. The result of this study will reflect comprehensive storm analysis as well as precipitation and dew point climatologies throughout the state. It will also open the door to research opportunities in extending the methodologies historically to determine if the probable maximum precipitation values varied in time.

As the state climatologist of the state, educator and the researcher at the North Dakota State University, I support this study.

Sincerely,



F. Adnan Akyüz, Ph.D.
NORTH DAKOTA STATE UNIVERSITY
Professor of Climatological Practice
North Dakota State Climatologist
American Association of State Climatologists, President



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
1616 CAPITOL AVENUE
OMAHA NE 68102-4901

September 5, 2018

Mr. Garland Eberle
State Engineer
North Dakota State Water Commission
900 East Boulevard Avenue
Bismarck, North Dakota 58505

Mr. Eberle:

The U.S. Army Corps of Engineers (USACE) supports state-led Silver Jackets Teams. USACE-Omaha District has received funding for a project proposal for an Interagency Flood Risk Management Project. The project would allow participation by USACE-Omaha District on the Steering Committee and Review Panel for the North Dakota State Water Commission statewide Probable Maximum Precipitation (PMP) study.

If you have any questions please contact me at tony.d.krause@usace.army.mil or 402-995-2326.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony D. Krause".

Tony D. Krause, P.E., CFM
Flood Risk and Floodplain
Management Section
Hydrologic Engineering Branch
Engineering Division



RED RIVER RETENTION AUTHORITY

1201 Main Avenue West
West Fargo, ND 58078-1301 Phone: 701-298-2381

September 5, 2018

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SEP - 7 2018

STATE WATER COMMISSION

Keith Weston
Executive Director

Garland Erbele, P.E.
State Engineer
900 East Boulevard Avenue, Dept. 770
Bismarck, ND 58505

John Finney
Humboldt, Minnesota
(218) 379-3163
Finney@invisimax.com

Dear Mr. Erbele:

RE: North Dakota Probable Maximum Precipitation Study

Gary Thompson
Mayville, North Dakota
(701) 430-1282
Tully@polarcomm.com

The Red River Retention Authority (RRRA) is writing in support of the Probable Maximum Precipitation (PMP) Study for North Dakota, which is scheduled for discussion at the upcoming North Dakota State Water Commission (NDSWC) meeting on October 10, 2018.

Jerome Deal
Wheaton, Minnesota
(320) 563-8377
Bdswd@frontiernet.net

The RRRA supports the proposal to update the National Weather Service Hydrometeorological Reports currently utilized for PMP determination in North Dakota, on the basis of the last four decades of precipitation data and modern hydrological modeling procedures.

Rodger Olson
Leonard, North Dakota
(701) 238-8345
Olsonrodger@aol.com

Timely completion of the report will improve the quality and potentially generate cost savings on the large number of flood storage structures currently being planned through the joint Regional Conservation Partnership Program (RCP) watershed planning efforts being carried out by the Natural Resources Conservation Service (NRCS), RRRA, NDSWC, Red River Joint Water Resource District and individual Water Resource Districts in the Red River Valley. In the planning stage alone, there has been an overall commitment of over \$8 million in taxpayer funds to these projects. The specific project sponsors who would benefit from the PMP update include:

Greg Holmvik
Ada, Minnesota
(218) 784-7399
gholmvik@loretel.net

Ben Varnson
Lakota, North Dakota
(701) 259-2127
charlenevarnson@gmail.com

- Cass County Joint Water Resource District: Rush River and Upper Maple River Watersheds
- Sargent County Water Resource District: Shortfoot Creek Watershed
- Walsh County Water Resource District: Forest River Watershed
- Park River Joint Water Resource District: North Branch Park River Watershed
- Pembina Water Resource District: Tongue River Watershed
- Richland County Water Resource District: North Branch Antelope Creek Watershed

Carol Harbeke Lewis
Secretary-Treasurer
(701) 298-2381
FAX (701) 298-2397
Lewis@casscountynod.gov
www.redriverretentionauthority.net

Garland Erbele
Page 2
September 5, 2018

It is anticipated that planning work for these watershed projects will be completed by the fall of 2019, at which point the Sponsors will be seeking additional funds for final design work of accepted projects. It would be ideal if the PMP Study was completed and ready to utilize at that point in time.

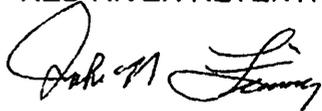
Also, this information will be critical in the design of NRCS dam rehabilitation projects. The Walsh County Water Resource District is beginning planning this fall on a rehabilitation project on Matecjek Dam on the Middle - South Branch of the Forest River, with support from the NRCS PL-566 Program. Having the updated PMP Study available in the fall of 2019 will ensure the project is efficiently planned and designed.

It is the RRRRA's hope that both the NRCS and the NDSWC will continue to be key partners in jointly funding construction of this flood retention project, which is expected to be in the range of \$15-20 million, as well as the seven RCPP watersheds. The proposed investment in the PMP study will be minor in the scope of these RCPP projects and other large flood control projects in the state.

We appreciate the efforts of the NDSWC in pursuing this important study.

Sincerely,

RED RIVER RETENTION AUTHORITY

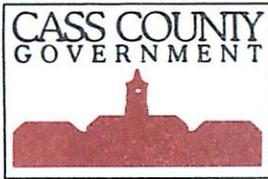


John Finney
Co-Chair



Gary Thompson
Co-Chair

cc: Michael Anderson, Commissioner, ND State Water Commission
Matthew Pedersen, Commissioner, ND State Water Commission



September 14, 2018

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STATE WATER COMMISSION

Cass County
Joint Water
Resource
District

Garland Erbele, P.E.
State Engineer
900 East Boulevard Avenue, Dept. 770
Bismarck, ND 58505

Dear Mr. Erbele:

RE: North Dakota Probable Maximum Precipitation Study

Dan Jacobson
Chairman
West Fargo, North Dakota

The Cass County Joint Water Resource District (CCJWRD) is writing in support of the Probable Maximum Precipitation (PMP) Study for North Dakota, which is scheduled for discussion at the upcoming North Dakota State Water Commission (NDSWC) meeting on October 11, 2018.

Rodger Olson
Manager
Leonard, North Dakota

The CCJWRD supports the proposal to update the National Weather Service Hydrometeorological Reports currently utilized for PMP determination in North Dakota, on the basis of the last four decades of precipitation data and modern hydrological modeling procedures.

Lance Yohe
Manager
West Fargo, North Dakota

Timely completion of the report will improve the quality and potentially generate cost savings on the large number of flood storage structures currently being planned through the joint Regional Conservation Partnership Program (RCPP) watershed planning efforts being carried out by the Natural Resources Conservation Service, Red River Retention Authority, NDSWC, Red River Joint Water Resource District and individual Water Resource Districts in the Red River Valley. CCJWRD is sponsoring two of these watershed planning efforts, located in the Rush River and Upper Maple River Watersheds. These projects would benefit from the PMP update.

Ken Lougheed
Manager
Gardner, North Dakota

It is anticipated that planning work for these watershed projects will be completed by the fall of 2019, at which point CCJWRD will be seeking additional funds for final design work of accepted projects. It would be ideal if the PMP Study was completed and ready to utilize at that point in time. The proposed investment in the PMP study will be minor in the scope of these RCPP projects and other large flood control projects in the state.

Jacob Gust
Manager
Fargo, North Dakota

We appreciate the efforts of the NDSWC in pursuing this important study.

Carol Harbeke Lewis
Secretary-Treasurer

1201 Main Avenue West
West Fargo, ND 58078-1301

Sincerely,

CASS COUNTY JOINT WATER RESOURCE DISTRICT

701-298-2381
FAX 701-298-2397
wrld@casscountynod.gov
casscountynod.gov

Carol Harbeke Lewis
Secretary-Treasurer

**RICHLAND COUNTY
WATER RESOURCE DISTRICT**

MANAGERS:

Gary Friskop, Chr. (Wahpeton)
Arv Burvee, Vice Chr. (Fairmount)
James Haugen (McLeod)
Don Moffet (Barney)
Robert Rostad (Colfax)

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STATE WATER COMMISSION

SECRETARY /TREASURER:

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CIVIL TECHNICIAN:

Justin Johnson
(701)642-7835 (Phone)
justinj@co.richland.nd.us (E-mail)

September 10, 2018

Garland Erbele, P.E.
State Engineer
ND State Water Commission
900 East Boulevard Avenue
Bismarck, ND 58505

Dear Mr. Erbele,

We are writing in support of the Probable Maximum Precipitation (PMP) Study for North Dakota, scheduled for discussion at your upcoming North Dakota State Water Commission meeting on October 11th. The Richland County Water Resource District is in full support of the proposal to update the National Weather Service Hydrometeorological Reports currently utilized for PMP determination in North Dakota, on the basis of the last four decades of precipitation data and modern hydrological modeling procedures.

As you are aware, a large number of flood storage structures are currently being planned through the joint NRCS, Red River Retention Authority, North Dakota State Water Commission, and individual Water Resource Districts in sub-watersheds of the Red River Valley. Richland County has a large sub-watershed (North Branch of the Antelope Creek) included in this planning effort. Timely completion of the report will improve the quality, and potentially generate cost savings, on these studies. It is anticipated that planning work for our watershed project will be completed by Fall 2019, at which point we will seek additional funds for final design work of accepted projects. In order to efficiently plan and design potential flood storage structures it would be ideal if the PMP Study was completed and ready to utilize at that point in time.

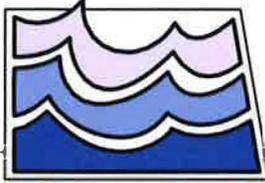
In all likelihood, NRCS and the North Dakota State Water Commission will end up jointly funding construction, which is expected to be in the range of \$5 million or more. Certainly the proposed investment in the PMP Study will be minor in the scope of this and other large flood control projects in the state.

We appreciate the efforts of the North Dakota State Water Commission in pursuing this important study.

Sincerely,

Gary Friskop, Chairman

cc: Interstate Engineering, Inc.



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
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MEMORANDUM

TO: Governor Doug Burgum
 Members of the State Water Commission

FROM: Garland Erbele, P.E., Chief Engineer - Secretary

SUBJECT: SWPP – Project Update

DATE: September 17, 2018

Oliver, Mercer, North Dunn (OMND) Regional Service Area
Rural Distribution Contracts 7-9E, 7-9G Bid Schedule 1 and 2:

Reclamation, seeding and final administrative items remain before final payments can be made on Contract 7-9E and Contracts 7-9G Bid Schedule 1.

Other Contracts

Contract 8-1A New Hradec Reservoir:

This contract involves furnishing and installing a 296,000-gallon fusion powder coated bolted steel reservoir. Olander Contracting Company is the contractor. The contract documents were executed on May 16, 2013, and the Notice to Proceed was issued on June 3, 2013. The substantial completion date on this contract was September 15, 2013. The tank was put into service on February 20, 2014. The contractor disputes the liquidated damages withheld. The contractor has not provided any justification for the delays. The contractor has filed a lawsuit against us and their tank sub-contractor. Our legal counsel has filed an answer to their lawsuit. We have not heard anything regarding the lawsuit for many months.

Contract 3-2D Six (6) MGD Water Treatment Plant (WTP) at Dickinson:

The water treatment plant started producing finished water on February 7, 2018. The contract was considered substantially complete on March 7, 2018. Contractor is working on administrative and punch list items. An issue with the concrete floor has been identified, and solutions for remedying it have been proposed to the General contractor. Contractor has filed a claim disputing the decision by the Engineer on potential change order for the concrete floor repair work. The contractor has been directed to complete the repair work, and then the responsibility of the cost be disputed. The floor repairs are expected to happen in mid-October. BW/AECOM has determined the cost responsibility for the temporary and permanent heat and electricity between SWC, General, Mechanical and Electrical contractors and forwarded that information to the contractors. It will be incorporated into a future change order. To date, six change orders totaling \$401,652.24 (2 percent of the contract amount) have been signed by all parties.

The Electrical Contractor, Edling Electric, is working on administrative items and punch list items. Two change orders totaling \$56,663.26 (2 percent of the contract amount) are signed by all parties.

The Mechanical Contractor, Williams Plumbing and Heating, is working on administrative items and punch list items. Three change orders totaling \$158,644.48 (6 percent of the contract amount) has been signed by all parties.

Contract 3-2E Residual Handling Building at Dickinson WTP:

The preconstruction conference for this contract was held on October 5, 2017 with all three contractors, Rice Lake Construction Group, Central Mechanical, Inc. and Edling Electric. The General Contractor, Rice Lake Construction Group, mobilized to site on October 16, 2017 and has completed the majority of the cast in place and precast concrete work. The filter press equipment was installed end of August. The contract has a milestone completion date of September 1, 2018 for having the building enclosed and a Substantial Completion date of February 28, 2019. The contractor is working on getting the building temporarily enclosed to meet the intent of the milestone completion date that will allow the Mechanical and Electrical contractors to continue with construction. The Electrical and Mechanical contracts are approximately 13 percent and 22 percent complete.

Contract 5-1A and 5-2A 2nd Richardton Reservoir and 2nd Dickinson Reservoir:

The State Water Commission (SWC), at its October 12, 2016 meeting, awarded Contract 5-2A, 2nd Dickinson Reservoir, to John T. Jones Construction Company. Preconstruction conference for this contract was held on March 30, 2017. The contractor has completed work on the new reservoir, and the new reservoir came online on September 7, 2018. The contractor is currently working on the supplementary overflow weir box for the existing reservoir and site backfill. One change order for \$19,475 (0.5 percent of the contract amount) has been executed by all parties. The contract completion date on this contract was November 1, 2017. Contractor initially requested a 115-day extension to the contract due to weather delays and changes incorporated to the contract. In response to request for more documentation, the contractor changed their request to 67 days. We have responded to their request indicating 45-day extension is justified.

The SWC at its December 9, 2016 meeting awarded Contract 5-1A, 2nd Richardton Reservoir, to Engineering America, Inc. A preconstruction conference for this was held on June 7, 2017. The contract was approximately 88 percent complete. Engineering America, Inc., went out of business as of end of July. The bonding company has taken over responsibility for the remaining work on the contract. The bonding company has directed us to get quotes for completing the remaining work with them being responsible for any costs above the remaining funds on the contract. The remaining work on the contract will require five different contractors. A bolted tank contractor, cathodic protection contractor, earthwork contractor, welded tank contractor and fencing contractor. We executed contracts with a bolted tank contractor and cathodic protection contractor, and their work is complete. We are still waiting to hear from prospective contractors for finishing the other three trades of work.

Contract 2-1B Raw Water Line Capacity Upgrade from intake to OMND WTP:

The scope of work for Contract 2-1B generally consists of furnishing and installing 19,026 lineal feet of 30" diameter steel pipeline. Contractor has completed installation of pipeline with the exception of tie-ins to the existing raw water pipeline. The tie-ins were scheduled for mid-September. According to Southwest Water Authority staff, water use may not be low enough to allow the tie-in in mid-September. Tie-ins have been delayed until mid-October. One change order for \$170,886.50 (3 percent of the contract amount) has been signed by all parties.

Contract 1-2A Supplemental Raw Water Intake:

The contractor, J.W.Fowler Company (JWF), launched the Microtunneling Boring Machine (MTBM) along the current alignment on August 2017. On October 5, 2017, JWF had installed approximately 1000 feet of intake pipe when employees observed some cracks on pipe no. 58 located approximately 500 feet from the caisson. After pushing a few additional pipes, the cracks worsened. On October 18, 2017, JWF informed that the best course of action to remediate the incident was to leave the installed pipe string in place and pursue other options to complete the intake pipe to the screen location.

JWF's initial plan was to install a rescue shaft 65 feet X 25 feet on top of the MTBM to retrieve the machine and relaunch the machine from the rescue shaft. This information was conveyed to the United States Army Corps of Engineers (USACE) to get permission for performing geotechnical exploration. USACE's review indicated that the rescue shaft is located on an established culturally significant site. USACE's ability to allow a rescue shaft at the location would depend on consultation and review by other agencies and tribes and will involve a significant amount of time. JWF explored other options which included constructing an emergency rescue shaft on the shoreline approximately 150' lake side of the MTBM location, installing the intake pipe by using Direct Pipe® option from near the existing shaft to the proposed screen location and using Horizontal Directional Drilling (HDD) for installing the intake pipe. JWF is working with the builder's risk to secure coverage.

HDD method is currently the primary focus for JWF. JWF is considering 36" outside diameter (OD) steel pipe and 42" OD HDPE pipe. JWF's diving subcontractor completed the underwater topographical survey under the lake during the week of September 11. The topographical data will be used by JWF to decide between the 36" steel pipe and the HDPE pipe.

Contract 4-1E/4-2B Upgrades at the Dodge and Richardton pump stations:

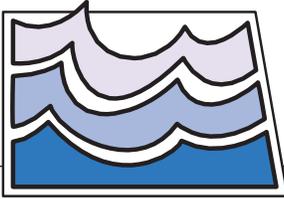
Bids for this contract were opened on August 30, 2018. Bid results and recommendation for award are discussed in a separate memo.

Transfer of Service Agreements:

At the December 12, 2015 SWC meeting, the Commission approved the Transfer of Service agreement between the City of Killdeer, the SWA and the SWC. This was the first annexation agreement negotiated between a city served by Southwest Pipeline Project and the SWA.

In early January 2016, the SWA mailed similar agreements to 33 communities within the SWPP service area except for the City of Dickinson using the same template as used for the City of Killdeer. The SWA has been negotiating different terms with the City of Dickinson, but now the City of Dickinson is agreeable to the same terms as the other communities. Some communities executed the agreement, while many communities expressed concerns about terms of the annexation agreement that was mailed to them. The SWA continues to meet with the communities to negotiate the terms. Thirty-one communities out of the total 35 communities have executed the agreement.

GE:SSP:pdh/1736-99



North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission

FROM: Garland Erbele, P.E., Chief Engineer - Secretary

SUBJECT: SWPP – Contract 4-1E/4-2B Pump Station upgrades at Dodge and Richardton Award

DATE: September 12, 2018

The Southwest Pipeline Project's (SWPP) Contract 4-1E/4-2B, Dodge and Richardton Pump Station Upgrades, mainly includes replacement of three existing 700 horsepower (HP) with 1000 HP vertical turbine pumps and installation of one new 1000 HP vertical turbine pump at Dodge pump station along with associated valves, piping and electrical work, replacement of three 900 HP vertical turbine pumps with 1250 HP pumps at the Richardton pump station along with associated valves, piping and electrical work. The scope of work also includes construction of two new surge control systems, a 6,079 cubic foot (CF) air chamber at Richardton pump station, a 1,507 CF air chamber downstream of the Dodge pump station, replacement of surge air chamber probe wells at two existing air chambers, replacement of concrete pump pedestals, new mechanical systems including exhaust fans and inlet louvers. Bid Alternates were included for many replacement items which are eligible for reimbursement from the Replacement and Extraordinary Maintenance (REM) fund.

Bids for Contract 4-1E/4-2B were opened on August 30, 2018. As required by North Dakota Century Code §48-01.2-06, the contract was divided into separate prime bids for the General, Mechanical, and Electrical portions of the work. A Combined Single Bid was also provided to encompass all individual scopes of work.

The scope of Section I - General Construction consists of pumps, piping, valves, reconstruction of new concrete pump pedestals, concrete equipment slabs for air compressor and receiver, excavation and backfill, complete surge control system with buried surge air chambers and controls at two locations, replacement of surge air chamber probe wells at remote sites, and connection of the new surge air chambers to the existing main transmission pipelines. Three Bid Alternates were included in Section I. Bid Alternate 1 is for replacement of an existing 12" pump control valve at Dodge pump station which is a REM eligible item. Bid Alternates 2 and 3 were for providing vertical turbine pumps manufactured by Flowserve instead of the specified Floway pumps. Bid Alternates 2 and 3 are for the upgrades contract and are not items eligible for REM fund.

The scope of base bid for Section II – Mechanical Construction consists of furnishing and installing fans and louvers at both Dodge and Richardton pump stations, domestic water piping and emergency eyewash and shower at Dodge pump station. Six bid alternates were included in Section II, which includes replacement of the existing oil-fired heater/dehumidifiers, one at each pump station, main fuel tanks and day tanks at each pump station, 30 kW standby engine generator at Dodge pump station and 40 kW standby engine generator at Richardton pump station. All six items included in the Mechanical section are items eligible for reimbursement from REM.

September 12, 2018

The scope of Section III – Electrical Construction contract consists of furnishing and installing power to equipment provided by General and Mechanical construction, power, electrical distribution, new pump starter, power to surge air chambers and compressors, testing and installing all wiring and field connections.

Six bid packages were received for Contract 4-1E/4-2B. Three for Section I – General Construction Contract, one for Section II – Mechanical Construction Contract and two for Section III – Electrical Construction Contract. The three bidders on Section I also submitted bids for Section IV – Combined Single Construction Contract. All six bid packages were opened and read.

Tabulation of the bid results are shown below.

Table 1 Section I – General Construction Contract

Bidder	Bid Amount	Amount Higher than Low Bidder
PKG Contracting, Inc Fargo, ND	\$5,369,000.00	-
Rice Lake Construction Group Deerwood, MN	\$5,406,000.00	+\$37,000.00 0.7%
John T. Jones Construction Co. Fargo, ND	\$5,745,000.00	+\$376,000.00 7.0%
Engineer's Estimate	\$6,557,000.00	+\$1,188,000.00 22.6%

Table 2 Section II – Mechanical Construction Contract

Bidder	Bid Amount	Amount Higher than Low Bidder
Central Mechanical, Inc Mandan, ND	\$139,100.00	-
Engineer's Estimate	\$254,000.00	+114,900.00 +82.6%

Table 3 Section III – Electrical Construction Contract

Bidder	Bid Amount	Amount Higher than Low Bidder
Edling Electric, Inc. Bismarck, ND	\$488,700.00	-
Muth Electric, Inc Mitchell, SD	\$574,008.00	+\$85,308.00 +17.5%
Engineer's Estimate	\$352,000.00	-\$136,700.00 -28.0%

Table 4 Bid Alternates for Section I – General Construction Contract

Item	PKG Contracting	Rice Lake Construction Group	John T. Jones Construction Co
G-D-1 Furnish and replace 12” booster pump control valve on Pump No. 2	+\$51,489.00	+\$60,000.00	+\$60,000.00
G-D-2 Addition/deduction for utilizing Flowserve Model 23ELL pumps in lieu of Floway Model 22BKL or equal for Bid items 6 and 10	-\$100,000.00	-\$165,000.00	-\$165,120.00
G-R-1 Addition/deduction for utilizing Flowserve Model 23ELL pumps in lieu of Floway Model 22BKL or equal for Bid item 23	-\$125,000.00	-\$199,000.00	-\$198,772.00

Table 5 Bid Alternates for Section II – Mechanical Construction Contract

Item	Central Mechanical
M-1-D – Dodge PS Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pad	+\$144,800.00
M-2-D – Dodge PS Furnish and install main fuel oil tank, day tank and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads	+\$53,100.00
M-3-D – Dodge PS Furnish and install a new 30kW standby engine generator, including salvaging existing equipment	+\$50,800.00
M-1-R – Richardton PS Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pad	+\$144,800.00
M-2-R – Richardton PS Furnish and install main fuel oil tank, day tank and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads	+\$53,100.00

Table 5 Bid Alternates for Section II – Mechanical Construction Contract (Continued)

M-3-R– Richardton PS Furnish and install a new 40kW standby engine generator, including salvaging existing equipment	+\$53,300.00
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Table 6 Section IV – Combined Single Construction Contract

Bidder	Bid Amount	Amount Higher than Low Bidder
PKG Contracting, Inc Fargo, ND	\$6,057,000.00	-
Rice Lake Construction Group Deerwood, MN	\$6,128,000.00	+\$71,000.00 +1.2%
John T. Jones Construction Co. Fargo, ND	\$6,440,000.00	+\$383,000.00 +6.3%
Engineer’s Estimate	\$7,188,000.00	+\$1,131,000.00 +18.7%

Table 7 Comparison of Combine Single Construction Bid to Sum of the Lowest Individual Bids

Bidder	Lowest Combined Single Bid	Summation of Lowest Individual Bids
PKG Contracting, Inc Fargo, ND	\$6,057,000.00	-
PKG Contracting, Inc	-	\$5,369,000.00
Central Mechanical Inc.	-	\$139,100.00
Eddling Electric Inc.	-	\$488,700.00
Sum	-	\$5,996,800.00
Difference	+\$60,200.00	

The single combined prime bid from PKG Contracting, Inc. is \$60,200 higher than the summation of the low individual bids. There would be advantages from having one contract versus three in terms of administrative costs, communication, coordination, and scheduling. However, North Dakota Century Code §48-01.2-06 states “A governing body may not accept the single prime bid unless that bid is lower than the combined total of the lowest responsible multiple bids for the project.” So, the contract should be awarded to the lowest individual bids on the different Sections.

The low base bid for Section I – General Construction from PKG Contracting Inc. (PKG) is \$5,369,000.00. The low bid is 22.1 percent less than the Engineer’s estimate. Review of the bid tab indicates that the most of the difference is in the price of the major equipment items which includes the vertical turbine pumps and the large surge air chambers.

The Southwest Water Authority (SWA) has requested that the Bid Alternate G-D-1 which is the 12” pump control valve at Dodge be included in the award of the Bid Section I. The price for Bid Alternate G-D-1 is \$51,489.00.

September 12, 2018

Bid Alternates G-D-2 and G-R-1 were added through addendum for providing vertical turbine pumps manufactured by Flowserve instead of the specified Floway pumps or equal. The performance characteristics of Flowserve pumps is less than the Floway pumps. Because of the lower pump capacity, additional parallel piping would be needed to achieve the same flow rate. The deduction provided for the Bid Alternates are not large enough, and the Engineer has not recommended including Bid Alternates G-D-2 and G-R-2.

The low base bid for Section II – Mechanical Construction from Central Mechanical Inc., is \$139,000.00. The Engineer's estimate is 82.6 percent higher than the low bid. The substantial difference between the Engineer's estimate and the bid price could be because, the Engineer's estimate included some adjustments for local market conditions which may no longer be needed.

The SWA has requested that the Bid Alternates M-1-D and M-1-R, which are the oil fired unit heater and dehumidifiers at the Dodge and Richardton pump stations, be included in the award of Section II to Central Mechanical. The combined costs of M-1-D and M-1-R is \$289,600.

The low base bid for Section III – Electrical Construction from Edling Electric Inc., is \$488,700. The low bid is 38.8 percent higher than the Engineer's estimate. The major difference between the Engineer's estimate and the low bidder was on work that included providing replacement parts for the existing switchgear because of the larger pumps. The supplier had provided budgetary numbers to the electrical contractor which was used by both the bidders. It is possible that the cost may be lower than the quoted budgetary numbers provided by the supplier. Since the General Construction and the Mechanical Construction sections came in much lower than the budgeted amounts, in order to avoid impacts to schedule and costs due to rebidding, the recommendation from the Engineer is to award the contract to Edling Electric and then negotiate an adjustment to that bid item.

Bartlett & West/AECOM (BW/AECOM) has reviewed the bids received and found the bids from PKG Contracting, Inc., for Section I - General Construction Contract; Central Mechanical for Section II - Mechanical Construction Contract; and Edling Electric for Section III - Electrical Construction Contract to be in accordance with the Advertisement for Construction Bids and the Bid Documents. Thus, all three are considered to be responsive Bids.

All three low bidders PKG Contracting, Inc., Central Mechanical, Inc., and Edling Electric, Inc., have successfully completed work for SWPP, so they are considered responsible bidders.

The review of bids and recommendation letter from Bartlett & West/AECOM along with the Bid Tab are attached with this memo.

The total bid price of the above three contracts without any alternates is \$5,996,800. The estimated Project cost for construction is \$7.2 Million, which includes estimated engineering, contingencies and costs to upgrade power to the pump stations.

The total cost of REM bid alternate items requested to be included in the contract is \$341,089. The SWA Board of Directors will approve the requested REM items at their October 1, 2018 Board of Directors meeting. Cost of the REM items included in the contract when paid out to the contractors will be requested for reimbursement from SWA. The REM items represent approximately 5 percent of the total contract amount. Five percent of the construction

September 12, 2018

administration costs paid to BW/AECOM will also be requested for reimbursement from REM funds. Including construction administration costs and contingencies, the total cost for REM items is estimated approximately to be \$400,000.

I recommend the State Water Commission authorize the Chief Engineer and Secretary to award SWPP Contract 4-1E/4-2B – General to PKG Contracting, Inc., in the amount of \$5,420,489 based on Bid Section I with Alternate Bid Alternate G-D-1, SWPP Contract 4-1E/4-2B – Mechanical to Central Mechanical, Inc. in the amount of \$428,700 based on Bid Section II with Bid Alternates M-1-D and M-1-R, and SWPP Contract 4-1E/4-2B – Electrical to Edling Electric, Inc. in the amount of \$488,700 based on Bid Section III with Alternate Bid Items 1 and 2. The award of the contracts will be dependent upon legal review of the contract documents and concurrence from the Garrison Diversion Conservancy District.

I recommend the State Water Commission approve \$7.2 million to the Southwest Pipeline Project from the funds appropriated for the 2017-2019 biennium.

I recommend the State Water Commission approve reimbursement from the Reserve Fund for Replacement and Extraordinary Maintenance for the Bid Alternates G-D-1, M-1-D and M-1-R along with construction administration, in an amount not to exceed \$400,000.

GE:SSP:pdh/1736-99

Attachments

September 5, 2018

North Dakota State Water Commission
Attn: Ms. Sindhuja S.Pillai-Grinolds, P.E., Project Manager
900 E. Boulevard Ave.
Bismarck, ND 58505

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SEP - 7 2018

STATE WATER COMMISSION

**SUBJECT: SWPP Contract 4-1E/4-2B, Dodge & Richardton Pump Station Upgrades
Review of Bids Received
W.O. 3033.A02**

Sindhu:

On Thursday August 30, 2018, bids were opened for the Southwest Pipeline Project (SWPP) Contract 4-1E/4-2B, Dodge and Richardton Pump Station Upgrades. The scope of work for this project generally consists of: the replacement of three (3) 700 horsepower (HP) vertical turbine pumps with 1000 HP vertical turbine pumps and installation of one new 1000 HP pump at the Dodge Pump Station with associated valves, piping, and electrical work; replacement of three (3) 900 HP vertical turbine pumps with 1250 HP vertical turbine pumps at the Richardton Pump Station with associated valves, piping, and electrical work; construction of a complete new surge control system with a 6,079 cubic foot (CF) air chamber, air compressor, and controls at the Richardton Pump Station, construction of a complete new surge control system with 1,507 CF air chamber, air compressor, and controls at an existing surge control location approximately 3.5 miles southwest of Dodge, ND; replacement of surge air chamber probe wells at two existing surge chamber locations 2.3 miles east of Dodge, ND and 11 miles north of the Richardton Pump Station respectively. At both pump stations work will include replacement of concrete pump pedestals, new mechanical systems, including exhaust fans and inlet louvers, fuel storage tanks, oil fired heaters/dehumidifiers, 30 KW and 40 KW standby diesel generators. At the Dodge Pump Station work also includes installation of a water heater and emergency eyewash/shower.

Separate Bid Sections and scopes of work were provided under this Project for the General, Mechanical, and Electrical Contracts. A Combined Single Bid Section was also provided to encompass all individual scopes of work.

Section I - General Construction Contract consists of pumps, piping, valves; reconstruction of new concrete pump pedestals; concrete equipment slabs for air compressor and receiver; excavation and backfill; capping of existing buried piping with thrust blocking; complete surge control system with buried surge air chambers and controls at two locations, replacement of surge air chamber probe wells at two remote sites, air and water piping, valves, connection of the new surge air chambers to the existing main transmission pipeline, cathodic protection systems and controls, site restoration and seeding; salvaging materials; testing; and other associated work. One bid alternate was included in the General Construction Contract for replacement of an existing 12" pump control valve at the Dodge Pump Station. This alternate was requested for inclusion by Southwest Water Authority who intends to reimburse the Commission for its cost through the SWPP Replacement and Extraordinary Maintenance (REM) procedure.

Section II - Mechanical Construction Contract consists of furnishing and installing fans, fuel storage tanks with containment, heater and dehumidifier, emergency eyewash/shower, concrete equipment pads, water heater; diesel fueled standby electrical generators; salvaging materials; testing; and other associated mechanical work. Six (6) bid alternates were included in the Mechanical Construction Contract for replacement of: two (2) existing oil fired heater/dehumidifiers, one at each pump station; two (2) existing main fuel oil tanks and two (2) existing day tanks, one of each at each pump station; replacement of an existing 30 KW standby engine generator at Dodge; and a 40 KW standby engine generator at Richardton Pump Station. These alternates were requested for inclusion by Southwest Water Authority who intends to reimburse the Commission for its cost through the SWPP Replacement and Extraordinary Maintenance (REM) procedure

Section III - Electrical Construction Contract consists of furnishing and installing all power to General Construction and Mechanical facilities requiring power, electrical distribution, new pump starter, concrete equipment pad, power to surge air chambers and air compressors; testing; and installing all wiring and field connections to and for electrical items supplied under the General and Mechanical Contracts.

Section IV – Combined Single Construction Contract consists of work under Sections I, II, and III.

Six (6) bid packages were received for Contract 4-1E/4-2B, three (3) for Section I – General Construction Contract, one (1) for Section II – Mechanical Construction Contract, and two (2) for Section III – Electrical Construction Contract. All three Section I bidders also submitted bids for Section IV – Combined Single Construction Contract by designating such on their bid packages and filling out Sections II and III. All bids were opened and read aloud.

The lack of bids received for the Section II – Mechanical Construction and Section III – Electrical Construction contracts is somewhat disappointing but is not unprecedented in recent experience for the SWPP. Several other mechanical contractors expressed interest in the project and indicated they were providing quotes to Section IV – Combined Single Construction Contract bidders but were not interested in submitting bids for Section II as a prime contractor. One other electrical contractor who attended the pre-bid meeting on August 20, 2018, was expected to submit a bid but ultimately did not. Despite the lack of bids, the overall prices received were less than the Engineer's Estimate and all the bidders who submitted bids have done work in the past on SWPP.

A tabulation of the bid results and bidders on this contract is attached. A copy of the bid tab has been provided to all bidders and other interested parties. All three Section I and Section IV bidders exceeded the 5% allowable for mobilization and would require redistribution of bid amounts if awarded the contract. A summary of the bids received is shown in the tables below:

SECTION I - GENERAL CONSTRUCTION CONTRACT			
Bidder	Bid Amount	Amount Higher Than Low Bid	Comparison to Engineers Estimate
PKG Contracting, Inc. Fargo, ND	\$5,369,000.00	-	- \$1,188,000.00 -18.4%
Rice Lake Construction Group Deerwood, MN	\$5,406,000.00	+ \$37,000.00 0.7%	- \$1,151,000.00 -17.9%
John T. Jones Construction Co. Fargo, ND	\$5,745,000.00	+ \$376,000.00 7.0%	- \$812,000.00 -12.7%
Engineer's Estimate	\$6,557,000.00	+ \$1,188,000.00 22.6%	-

SECTION II - MECHANICAL CONSTRUCTION CONTRACT			
Bidder	Bid Amount	Amount Higher Than Low Bid	Comparison to Engineers Estimate
Central Mechanical, Inc. Mandan, ND	\$139,100.00	-	- \$114,900.00 -45.2%
Engineer's Estimate	\$254,000.00	+ \$114,900.00 82.6%	-

SECTION III - ELECTRICAL CONSTRUCTION CONTRACT			
Bidder	Bid Amount	Amount Higher Than Low Bid	Comparison to Engineers Estimate
Edling Electric, Inc. Bismarck, ND	\$488,700.00	-	+ \$136,700.00 38.8%
Muth Electric, Inc. Mitchell, SD	\$574,008.00	+ \$85,308.00 17.5%	
Engineer's Estimate	\$352,000.00	- \$136,700.00 -28.0%	-

SECTION IV – COMBINED SINGLE CONSTRUCTION CONTRACT			
Bidder	Bid Amount	Amount Higher Than Low Bid	Comparison to Engineers Estimate
PKG Contracting, Inc. Fargo, ND	\$6,057,000.00	-	- \$1,131,000.00 -15.7%
Rice Lake Construction Group Deerwood, MN	\$6,128,000.00	+ \$71,000.00 1.2%	- \$1,060,000.00 -14.7%
John T. Jones Construction Co. Fargo, ND	\$6,440,000.00	+ \$383,000.00 6.3%	- \$748,000.00 -10.4%
Engineer's Estimate	\$7,188,000.00	+ \$1,131,000.00 18.7%	-

COMPARISON OF LOWEST COMBINED SINGLE BID TO SUMMATION OF LOWEST INDIVIDUAL BIDS		
Bidder	Lowest Combined Single Bid	Summation of Lowest Individual Bids
PKG Contracting, Inc. Fargo, ND	\$6,057,000	-
PKG Contracting, Inc.		\$5,369,000
Central Mechanical Inc.		\$139,100
Edling Electric, Inc.		\$488,700
Sum		\$5,996,800
Difference		+ \$60,200

Based on a comparison of the bids received, three separate contracts should be awarded based on Bid Sections I, II, and III to PKG Contracting, Inc., Central Mechanical, Inc., and Edling Electric, Inc. since the summation of the lowest individual bids is lower than the lowest Combined Single Construction Contract bid under Section IV. The ND Century Code at §48-01.2-06 does not allow award of a single prime bid unless it is lower than the combined total of the lowest responsible multiple bids for the project. The single Section II - Mechanical Construction Contract bid would normally be cause for alarm if it had been substantially higher than the Engineer's Estimate. Comparison of the Central Mechanical bid to the Mechanical Construction Contract bids by PKG, Rice Lake and John T. Jones under Section IV – Combined Single Construction Contract also shows it was competitive.

Based on our review the bid received from PKG Contracting, Inc. (PKG) for Section I – General Construction Contract appears to be in accordance with the Advertisement for Construction Bids and the Bid Documents. It is thus considered to be a responsive bid. PKG has completed several contracts successfully for the SWPP including the General Construction Contract at the OMND WTP, and, notably, SWPP Contract 4-1B, Final Phase of Intake, Dodge, Richardton, and Jung Lake Pumping Facilities, which was the last contract that installed pumps at the Dodge and Richardton Pump Stations in 2003-2004. They are considered a responsible bidder. Subject to approval by your legal counsel that the Bid Documents are in order from a legal standpoint, we recommend that the North Dakota State Water Commission award SWPP Contract 4-1E/4-2B – General Construction, based on Section I – General Construction Contract, in the amount of \$5,369,000 to PKG Contracting Group. It is our understanding SWA may wish to include Alternate Bid Item G-1-D in this contract, and if so, our recommendation would be to award the contract to PKG, with that bid alternate, in the amount of \$5,420,489.00. The bid from PKG is 22.1% less than the Engineer's Estimate. Review of the bid item prices shows that most of the difference occurred in the prices received for the major equipment items of vertical turbine pumps and the large surge air chamber at the Richardton Pump Station.

Based on our review the bid received from Central Mechanical Inc. for Section II – Mechanical Construction Contract appears to be in accordance with the advertisement and the Bid Documents. It is thus considered to be a responsive bid. Central Mechanical has completed several projects successfully for the SWPP with their most recent work as Mechanical Contractor on the Southwest Water Treatment Plant Residuals Handling Facility, which is currently underway. They are considered a responsible bidder. Subject to approval by your legal counsel that the bid documents are in order from a legal standpoint, we recommend that the North Dakota State Water Commission award SWPP Contract 3-2D – Mechanical Construction, based on Section II – Mechanical Construction Contract in the amount of \$139,100.00 to Central Mechanical, Inc. It is our understanding SWA may wish to include Alternate Bid Items M-1-D, M-2-D, M-3-D, M-1-R, M-2-R, and m-3-R in this contract, and if so, our recommendation would be to award the contract, with those bid alternates, in the amount of 639,000.00. The bid from Central Mechanical for Section II was 82.6% lower than the Engineer's Estimate. This is a large difference but without multiple Mechanical Construction Contract bids it is difficult to assess. Some adjustment had been made to the Engineer's Estimate for local market conditions which may no longer be needed.

Based on our review the bid received from Edling Electric Inc. for Section III – Electrical Construction Contract appears to be in accordance with the advertisement and the Bid Documents. It is thus considered to be a responsive bid. Edling Electric has completed multiple projects successfully for the SWPP with their most recent on the Southwest Water Treatment Plant Residuals Handling Facility, which is currently underway. They are considered a responsible bidder. Subject to approval by your legal counsel that the bid documents are in order from a legal standpoint, we recommend that the North Dakota State Water Commission award SWPP Contract 3-2D – Electrical Construction, based on Section III – Electrical Construction Contract, in the amount of \$488,700.00 to Edling Electric, Inc. The bid from Edling Electric is 38.8% higher than the Engineer's Estimate. During the last week of bidding we were contacted by a sales engineer for Siemens saying they did not have enough time to provide bidders with pricing. Siemens is the supplier for the existing electrical switchgear in both pump stations and under this contract was to provide replacement parts for the switchgear necessitated by the larger pumps. Lacking a detailed analysis of the scope and existing equipment they provided bidders with a budgetary quote that they were confident was large enough to cover the cost. They have indicated they will continue to work on pricing and should have it completed in mid-September. Reviewing the individual bid items indicates most of the difference with the Engineer's Estimate is with the two bid items with Siemens equipment. One option would be to reject all the electrical bids and rebid the project once Siemens has finished with pricing. This may not be fair to the low bidder since they did nothing wrong, they simply used the information and pricing they had available. Another option would be to award the contract and then request an adjustment to those bid items that we know are affected. After the contract is awarded there is no obligation on the contractor's part to agree to this, we can only ask. Since the sum of the three bids for Sections I, II and III is lower than budgeted it is our recommendation to award the contract. This also avoids any schedule impacts and costs due to rebidding.

As noted, bid alternates were included in the Bidding Documents at the request of SWA for replacement of equipment which had reached its useful life and which SWA was considering replacing. Including these items in the contract allows SWA to get competitive pricing for the equipment. If these alternates are included in the contracts, then the Commission will be reimbursed for their cost through the SWPP REM procedure.

During bidding, additional bid alternates were added through addendum for vertical turbine pumps manufactured by Flowserve. The Bidding Documents specified particular models of Floway pumps which had been included in the design of both the pump station improvements and future parallel pipe segments. The Flowserve pumps added as alternates were not considered 'equal' to the Floway pumps that were specified as their performance characteristics were somewhat less than the Floway pumps and less than specified in the Bidding Documents. The SWPP has had many years of success with Floway vertical turbine pumps. The existing pumps at both Dodge and Richardton pump stations and at other main transmission pipeline pump stations are Floway pumps. More recent vertical turbine pump installations at the OMND WTP, Dickinson High Service Pump Station, and the Southwest WTP use Flowserve vertical turbines. While the experience with both Floway and Flowserve pumps has been positive there is a slight preference for Floway due to the longer history and successful use on other projects by the engineering joint venture members. The more important consideration is pump performance. The inclusion of Flowserve as an alternate provides for competition and avoids the situation where Floway might consider their pumps as 'sole source' items and thus commanding a premium price. The documents reserved the right of the Owner to award the Contract based on the combination of Bid Sections, with or without Alternate Bid Items, that is in the best interest and most advantageous to Owner. Summaries of the Alternate Bid Item pricing, are shown in the following tables.

Bid Alternates			
Section I - General Construction Contract			
Item	PKG Contracting	Rice Lake Construction Group	John T. Jones Construction
G-D- 1 Dodge Pump Station General Construction Alternate Bid Item 1. Furnish and Replace 12" booster pump control valve on Pump No. 2	+ \$51,489	+ \$60,000	+ \$60,000
G-D-2 Dodge Pump Station General Construction Alternate Bid Item 2. Addition/Deduction for Utilizing Flowserve Model 23ELL pumps in lieu of Floway Model 22BKL or equal, for Bid Items 6 and 10.	- \$100,000	- \$165,000	- \$165,120
G-R-1 Richardton Pump Station General Construction Alternate Bid Item 1. Addition/Deduction for Utilizing Flowserve Model 23EKL pumps in lieu of Floway Model 22BKL or equal, for Bid Item 23.	- \$125,000	- \$199,000	- \$198,772

Alternate Bid Item G-D-1 would be included in the contract solely at the discretion of SWA, based on their decision to replace the pump control valve at this time or defer it to later. Prices of the bid alternates for the Flowserve pumps in lieu of the specified Floway pumps can be compared to the estimated cost of future parallel pipe segments. With less pump capacity more parallel pipe would be needed to achieve the same flowrate. The cost savings represented in the pump alternate bid items are not large enough that we would recommend the Commission award the contract with them included.

Alternate bid items under Section II - Mechanical Construction Contract would be included at the discretion of SWA, based on their decision on whether to replace this equipment at this time or to defer it to later. Those alternate prices are shown in the following table.

Bid Alternates Section II - Mechanical Construction Contract	
Item	Central Mechanical
M-1-D Dodge PS Mechanical Alternate Bid Item 1. Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pad.	\$144,800
M-2-D Dodge PS Mechanical Alternate Bid Item 2. Furnish and install a main fuel oil tank, day tank, and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads	\$53,100
M-3-D Dodge PS Mechanical Alternate Bid Item 3. Furnish and install a new 30 KW standby engine generator, including salvaging existing equipment.	\$50,800
M-1-R Richardton PS Mechanical Alternate Bid Item 1. Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pads.	\$144,800
M-2-R Richardton PS Mechanical Alternate Bid Item 2. Furnish and install a main fuel oil tank, day tank, and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads.	\$53,100
M-3-R Richardton PS Mechanical Alternate Bid Item 3. Furnish and install a new 40 kw standby engine generator including salvaging existing equipment.	\$53,300
Total	\$499,900

Subject to approval by your legal counsel that the bid documents are in order from a legal standpoint, we recommend that the North Dakota State Water Commission award SWPP Contract 4-1E/4-2B Dodge and Richardton Pump Station Upgrades as follows: Section I to PKG Contracting, Inc. in the amount of \$5,369,900.00. [\$5,420,489.00], Section II to Central Mechanical Inc. in the amount of \$139,100.00 [\$639,000.00], and Section III to Edling Electric, Inc. in the amount of \$488,700.00.

The contract documents require that the SWC award the contract, if awarded, within 60 calendar days after the bid opening as stipulated in the Advertisement for Construction Bids and on the Bid Form. That date would be October 29, 2018. We understand that funding for this contract may be used to qualify for future federal cost-sharing through the state's Municipal, Rural and Industrial Water Supply Program. Thus, the award of the contract requires concurrence from the Garrison Diversion Conservancy District. The award of the contract and the Notice to Proceed are dependent on the satisfactory completion and submission of the contract documents by each Contractor and your legal counsel's review.

Sincerely,

BARTLETT & WEST/AECOM



James Lennington, P.E.
Project Manager

Copy: SWA - Mary Massad
GDCCD - Duane DeKrey
BOR - Dani Fettig

File: SWPP Contract 4-1E/4-2B: 10.0

BID TABULATION

CCI = 11124.49
 W.O.# = 3033.A02
 PROJECT: DODGE & RICHARDTON PUMP STATION UPGRADES
 CONTRACT 4-1E/4-2B
 DATE: AUGUST 30, 2018
 LOCATION: ND State Water Commission

SECTION 1- GENERAL CONSTRUCTION CONTRACT

Item No.	Description	Bid Unit	Engineer's Estimate		PKG Contracting Inc	Rice Lake Constructrino Group		John T Jones	Edling Electric		Muth Electric		Central Mechanical	
			Bid Price			Bid Price			Bid Price		Bid Price		Bid Price	
1	Mobilization, demobilization, temporary sanitary facilities, bonding, insurance, and permits.	LS	\$275,000		\$320,000	\$300,000		\$335,000						
2	Shielding and Shoring for the Protection of Workers	LS	\$10,000		\$2,000	\$10,000		\$35,000						
3	Furnish and install new probe wells at existing STA 882+91 and STA 1194+61 surge air chambers	LS	\$50,000		\$40,000	\$5,000		\$50,000						NO BID
GENERAL CONSTRUCTION AT DODGE PUMP STATION														
4	Site civil, grading, and site restoration	LS	\$35,000		\$8,000	\$15,000		\$40,000						
5	Abandonment and capping of 12" piping including thrust blocks	LS	\$50,000		\$22,000	\$25,000		\$20,000						
6	Furnish and install complete Pump Nos. 1, 4, and 5	LS	\$1,350,000		\$1,040,000	\$1,300,000		\$920,000						
7	Furnish and install 16" booster pump control valves at Pump Nos. 1, 4, and 5	LS	\$240,000		\$380,000	\$300,000		\$400,000						
8	Furnish and install discharge piping including 18" butterfly valve, air valve, and misc. piping at Pump No. 1	LS	\$40,000		\$40,000	\$35,000		\$50,000						
9	Furnish and install discharge piping including 20" butterfly valve, air valves, and misc. piping at Pump Nos. 4 and 5	LS	\$95,000		\$100,000	\$65,000		\$50,000						
10	Furnish and install Pump No. 6 including pump can, complete	LS	\$420,000		\$325,000	\$50,000		\$360,000						
11	Furnish and install 16" booster pump control valve at Pump No. 6	LS	\$75,000		\$100,000	\$300,000		\$130,000						
12	Furnish and install suction and discharge piping including 24" and 20" butterfly valves, air valves, and miscellaneous piping at Pump No. 6	LS	\$90,000		\$100,000	\$125,000		\$50,000						
13	Furnish and install 8" pressure-relief diaphragm valve, 8" piping, 8" and 24" butterfly valves, and 24" check valve at bypass manifold	LS	\$75,000		\$150,000	\$30,000		\$65,000						
14	Furnish and install 16" butterfly valves at Pump Nos. 2 and 3	LS	\$27,000		\$25,000	\$34,000		\$25,000						
15	Reconstruct concrete pump pedestals at Pump Nos. 1, 4, 5, and 6	LS	\$36,000		\$12,000	\$50,000		\$25,000						
GENERAL CONSTRUCTION AT RICHARDTON PUMP STATION														
16	Site civil, grading, and site restoration	LS	\$35,000		\$20,000	\$25,000		\$50,000						
17	Furnish and install surge air chamber at Richardton Pump Station, complete	LS	\$1,050,000		\$771,000	\$1,200,000		\$1,350,000						
18	Excavation, backfill, and grading for surge air chamber at Richardton Pump Station	LS	\$75,000		\$50,000	\$75,000		\$65,000						
19	16" piping connection from surge air chamber to 30" steel pipeline including connection and valve	LS	\$90,000		\$80,000	\$100,000		\$70,000						
20	Decommission existing surge air chamber and existing 20" pipeline.	LS	\$50,000		\$22,000	\$100,000		\$75,000						
21	Cathodic protection for surge chamber, complete	LS	\$100,000		\$28,000	\$7,500		\$25,000						
22	Air compressor, receiver tank, and air piping with valves for surge chamber, complete	LS	\$100,000		\$5,000	\$8,000		\$60,000						
23	Furnish and install Pump Nos. 1, 2, and 3 with pump cans, complete	LS	\$1,475,000		\$1,030,000	\$1,050,000		\$1,100,000						
24	Furnish and install 20" butterfly valves, air/vacuum valves, and miscellaneous piping at Pump Nos. 1, 2, and 3	LS	\$100,000		\$100,000	\$85,000		\$50,000						
25	Furnish and install 16" butterfly valves at Pump Nos. 4 and 5	LS	\$30,000		\$26,000	\$30,000		\$40,000						
26	Adjust 8" pressure-relief valve	LS	\$2,000		\$2,000	\$9,000		\$10,000						
27	Reconstruct concrete pedestals at Pump Nos. 1, 2, and 3	LS	\$27,000		\$9,000	\$25,000		\$25,000						
28	Construct concrete pads for new air compressor and receiver tank for surge air chamber	LS	\$10,000		\$2,000	\$10,000		\$25,000						

SECTION 1 - GENERAL CONSTRUCTION CONTRACT (continued)

Item No.	Description	Bid Unit	Engineer's Estimate		PKG Contracting, Inc		Rice Lake Construction Group		John T. Jones		Edling Electric		Muth Electric		Central Mechanical, Inc	
			Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	
GENERAL CONSTRUCTION AT STATION 171+30 SURGE AIR CHAMBER SITE																
29	Site civil, grading, and site restoration	LS	\$10,000	\$20,000	\$15,000	\$40,000										
30	Excavation, backfill, and grading for surge air chamber at Remote Site at Sta. 171+30. Contract 2-2C including removal of existing surge air chamber	LS	\$75,000	\$30,000	\$60,000	\$55,000										
31	Furnish and install surge chamber at Remote Site at Sta. 171+30. Contract 2-2C, complete	LS	\$420,000	\$450,000	\$600,000	\$550,000										
32	Piping connection from new surge air chamber to steel pipeline connection including couplings	LS	\$15,000	\$30,000	\$15,000	\$30,000										
33	Cathodic protection for surge air chamber, complete	LS	\$50,000	\$30,000	\$7,500	\$20,000										
SUBTOTAL SECTION 1 - GENERAL CONSTRUCTION CONTRACT (BID ITEMS 1 THROUGH 33)			\$6,582,000	\$5,369,000	\$6,066,000	\$6,195,000										
BID ADJUSTMENT ITEM (Addition) (Deduction) Circle One			\$0	\$0	-\$660,000	-\$450,000										
TOTAL BID, SECTION 1 - GENERAL CONSTRUCTION CONTRACT			\$6,582,000	\$5,369,000	\$5,406,000	\$5,745,000										
G-1-D	Dodge Pump Station Alternate Bid Item 1. Furnish and Replace 12" booster pump control valve on Pump No. 2 Bidders are required to provide a price for this item.	LS	\$40,000	\$51,489	\$60,000	\$60,000										
G-2-D	Dodge Pump Station General Construction Alternate Bid Item 2. Addition/Deduction for Utilizing Flowserve Model 23ELL pumps in lieu of Floway Model 22BKL or equal for Bid Items 6 and 10. Bidders are required to provide a price for this item.	LS	\$0	-\$100,000	-\$165,000	-\$165,120										
G-1-R	Richardson Pump Station General Construction Alternate Bid Item 1. Addition/Deduction for Utilizing Flowserve Model 23EKL pumps in lieu of Floway Model 22BKL or equal for Bid Item 23. Bidders are required to provide a price for this item.	LS	\$0	-\$125,000	-\$199,000	-\$198,772										
SUBCONTRACTORS:																
Excavation and Shoring Design																
Coatings																
SUPPLIERS:																
Piping																
Pumps																
Air Chambers																
Valves & Appurtenances																
			Engineer's Estimate	PKG Contracting, Inc	Rice Lake Construction Group	John T. Jones	Edling Electric	Muth Electric	Central Mechanical, Inc							
			Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price	Bid Price							
			\$0	\$0	-\$660,000	-\$450,000										
			\$6,582,000	\$5,369,000	\$6,066,000	\$6,195,000										
			\$0	\$0	-\$660,000	-\$450,000										
			\$6,582,000	\$5,369,000	\$5,406,000	\$5,745,000										
			\$40,000	\$51,489	\$60,000	\$60,000										
			\$0	-\$100,000	-\$165,000	-\$165,120										
			\$0	-\$125,000	-\$199,000	-\$198,772										
				PKG Contracting, Inc	Unlimited Excavating	John T. Jones										
				Fargo, ND	Washburn	Fargo, ND										
				ProTech	ProTech	Protech										
				Fargo, ND	Fargo, ND	Fargo, ND										
				Western Waterworks	Plant and Flange	Ferguson										
				Idaho	Blaine, MN	Fargo, ND										
				Floway	Floway	Floway										
				California	Fresno, CA	Fresno, CA										
				Wagner Plate Works	Wagner PlateWorks	Wagner Plate Works										
				APCO	Paramount	Paramount, CA										
					Dezurik/Vessco	Dezurik										
					Chanhassen, MN	Sartell, MN										

SECTION II - MECHANICAL CONSTRUCTION CONTRACT

Item No.	Description	BID UNIT	Engineer's Estimate		PKG Contracting, Inc.		Rice Lake Construction Group		John T. Jones		Edling Electric		Muth Electric		Central Mechanical, Inc.	
			Bid Price		Bid Price		Bid Price		Bid Price		Bid Price		Bid Price		Bid Price	
1	Mobilization, demobilization, bonding, insurance, and permits.	LS	\$12,000		\$6,000		\$5,000		\$6,000		NO BID		NO BID		\$6,000	
MECHANICAL CONSTRUCTION AT DODGE PUMP STATION																
2	Furnish and install fans and louvers	LS	\$124,000		\$82,000		\$100,000		\$74,700		NO BID		NO BID		\$74,700	
3	Furnish and install domestic water piping	LS	\$25,000		\$9,000		\$14,000		\$8,000		NO BID		NO BID		\$8,000	
4	Furnish and install water heater	LS	\$22,000		\$6,000		\$16,000		\$5,000		NO BID		NO BID		\$5,000	
MECHANICAL CONSTRUCTION AT RICHARDTON PUMP STATION																
5	Furnish and install fans and louvers	LS	\$71,000		\$50,000		\$55,000		\$45,400		NO BID		NO BID		\$45,400	
SUBTOTAL BASE BID SECTION II - MECHANICAL CONSTRUCTION CONTRACT (BID ITEMS 1 THROUGH 5)			\$254,000		\$153,000		\$190,000		\$139,100		NO BID		NO BID		\$139,100	
BID ADJUSTMENT ITEM (Addition) (Deduction) Circle One			\$0		\$0		\$0		\$0						\$0	
TOTAL BASE BID, SECTION II - MECHANICAL CONSTRUCTION CONTRACT			\$254,000		\$153,000		\$190,000		\$139,100		NO BID		NO BID		\$139,100	
M-1-D	Dodge PS Alternate Bid Item 1. Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pads Bidders are required to provide a price for this bid item.	LS	\$192,000		\$156,000		\$177,000		\$166,000						\$144,800	
M-2-D	Dodge PS Alternate Bid Item 2. Furnish and install a main fuel oil tank, day tank, and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads Bidders are required to provide a price for this bid item.	LS	\$50,000		\$58,000		\$54,000		\$61,000						\$53,100	
M-3-D	Dodge PS Alternate Bid Item 3. Furnish and install a new 30 KW standby engine generator, including salvaging existing equipment Bidders are required to provide a price for this bid item.	LS	\$97,000		\$55,000		\$56,000		\$58,000						\$50,800	
M-1-R	Richardson PS Alternate Bid Item 1. Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pads Bidders are required to provide a price for this bid item.	LS	\$192,000		\$155,000		\$176,000		\$166,000						\$144,800	
M-2-R	Richardson PS Alternate Bid Item 2. Furnish and install a main fuel oil tank, day tank, and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads Bidders are required to provide a price for this bid item.	LS	\$50,000		\$58,000		\$50,000		\$61,000						\$53,100	
M-3-R	Richardson PS Alternate Bid Item 3. Furnish and install a new 40 kw standby engine generator including salvaging existing equipment Bidders are required to provide a price for this bid item.	LS	\$99,000		\$58,000		\$59,000		\$61,000						\$53,300	
SUPPLIERS:																
Standby Engine Generators					Central Mechanical Bismarck		Generac Bismarck		Generac Waukesha WI						Generac Billings, MT	

SECTION III - ELECTRICAL CONSTRUCTION CONTRACT

Item No.	Description	BID UNIT	Engineer's Estimate		PKG Contracting, INC		Rice Lake Construction Group		John T Jones		Edling Electric		Muth Electric		Central Mechanical	
			Bid Price		Bid Price		Bid Price		Bid Price		Bid Price		Bid Price		Bid Price	
1	Mobilization, demobilization, bonding, insurance, and permits.	LS	\$15,000		\$26,000		\$30,000		\$24,400		\$24,400		\$16,545		NO BID	
ELECTRICAL CONSTRUCTION AT DODGE PUMP STATION																
2	Furnish and install all wiring and field connections to and for electrical items supplied under the general and mechanical contracts for a complete functioning system	LS	\$90,000		\$46,500		\$45,000		\$42,300		\$42,300		\$76,471		NO BID	
3	Furnish and install all additions to the existing main switchgear and motor control center	LS	\$62,000		\$185,000		\$175,000		\$170,600		\$170,600		\$164,394		NO BID	
4	Furnish and install motor starter for Pump P-6 including concrete pad	LS	\$55,000		\$61,000		\$60,000		\$55,400		\$55,400		\$85,690		NO BID	
ELECTRICAL CONSTRUCTION AT RICHARDTON PUMP STATION																
5	Furnish and install all wiring and field connections to and for electrical items supplied under the general and mechanical contracts for a complete functioning system including starters for fans and disconnect switches	LS	\$60,000		\$64,000		\$60,000		\$57,500		\$57,500		\$56,879		NO BID	
6	Furnish and install all additions to the existing main switchgear and motor control center	LS	\$55,000		\$147,500		\$140,000		\$134,000		\$134,000		\$171,764		NO BID	
ELECTRICAL CONSTRUCTION AT STATION 171+30 SURGE AIR CHAMBER SITE																
7	Furnish and install all wiring and field connections to and for electrical items supplied under the general and mechanical contracts for a complete functioning system	LS	\$15,000		\$5,000		\$5,000		\$4,500		\$4,500.00		\$2,265		NO BID	
SUBTOTAL BID SECTION III - ELECTRICAL CONSTRUCTION CONTRACT (BID ITEMS 1 THROUGH 7)					\$352,000		\$515,000		\$488,700		\$488,700		\$574,008		NO BID	
BID ADJUSTMENT ITEM (Addition) (Deduction) Circle One					\$0		\$0		\$0		\$0.00		\$0			
TOTAL BID, SECTION III - ELECTRICAL CONSTRUCTION CONTRACT					\$352,000		\$515,000		\$488,700		\$488,700		\$574,008		NO BID	

SECTION IV - COMBINED SINGLE CONSTRUCTION CONTRACT

Item No.	Description	BID UNIT	Engineer's Estimate		PKG Contracting, Inc.		Rice Lake Construction Group		John T Jones		Edling Electric		Muth Electric		Central Mechanical	
			Bid Price		Bid Price		Bid Price		Bid Price		Bid Price		Bid Price		Bid Price	
1	Summation of General Construction, Mechanical Construction, and Electrical Construction Bids (Bidder Must Fill in Each Bid Section)	LS	\$7,188,000		\$6,057,000		\$6,111,000		\$6,372,800							
BID ADJUSTMENT ITEM (Addition) (Deduction) Circle One			\$0		\$0		\$17,000		\$67,200							
TOTAL BID, SECTION IV - COMBINED SINGLE CONSTRUCTION CONTRACT			\$7,188,000		\$6,057,000		\$6,128,000		\$6,440,000							
G-1-D	Dodge Pump Station General Construction Alternate Bid Item 1. Furnish and Replace 12" booster pump control valve on Pump No. 2 Bidders are required to provide a price for this item.	LS	\$40,000		\$51,489		\$60,000		\$60,000							
G-2-D	Dodge Pump Station General Construction Alternate Bid Item 2. Addition/Deduction for Utilizing Flowserve Model 23ELL pumps in lieu of Floway Model 22BKL or equal for Bt Items 6 and 10. Bidders are required to provide a price for this item.	LS	\$0		-\$100,000		-\$165,000		-\$165,120							
G-1-R	Richardson Pump Station General Construction Alternate Bid Item 1. Addition/Deduction for Utilizing Flowserve Model 23ELL pumps in lieu of Floway Model 22BKL or equal for Bt Item 23. Bidders are required to provide a price for this item.	LS	\$0		-\$125,000		-\$199,000		-\$198,772							
M-1-D	Dodge PS Mechanical Alternate Bid Item 1. Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pads. Bidders are required to provide a price for this bid item.	LS	\$192,000		\$156,000		\$177,000		\$166,000							
M-2-D	Dodge PS Mechanical Alternate Bid Item 2. Furnish and install a main fuel oil tank, day tank, and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads and reconstruction of concrete pads. Bidders are required to provide a price for this bid item.	LS	\$50,000		\$58,000		\$54,000		\$61,000							
M-3-D	Dodge PS Mechanical Alternate Bid Item 3. Furnish and install a new 30 KW standby engine generator, including salvaging existing equipment. Bidders are required to provide a price for this bid item.	LS	\$97,000		\$55,000		\$56,000		\$58,000							
M-1-R	Richardson PS Mechanical Alternate Bid Item 1. Furnish and install oil-fired unit heater and dehumidifier, including salvaging existing equipment, removal and reconstruction of concrete pads. Bidders are required to provide a price for this bid item.	LS	\$192,000		\$155,000		\$176,000		\$166,000							
M-2-R	Richardson PS Mechanical Alternate Bid Item 2. Furnish and install a main fuel oil tank, day tank, and accessories, including salvaging existing equipment, removal and reconstruction of concrete pads. Bidders are required to provide a price for this bid item.	LS	\$50,000		\$58,000		\$50,000		\$61,000							
M-3-R	Richardson PS Mechanical Alternate Bid Item 3. Furnish and install a new 40 kw standby engine generator including salvaging existing equipment. Bidders are required to provide a price for this bid item.	LS	\$99,000		\$58,000		\$59,000		\$61,000							

BID ANOMALIES
SOUTHWEST PIPELINE PROJECT
DODGE & RICHARDTON PUMP STATION UPGRADES
CONTACT 4-1E/4-2B

The Bidder's Proposals for the contractor bidding on the Southwest Pipeline Project Contract 4-1E/4-2B were checked electronically, and the following were noted:

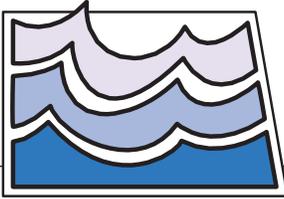
PKG CONTRACTING, RICE LAKE CONSTRUCTION GROUP, & JOHN T JONES
CONSTRUCTION

Section I – General Construction Contract

The Mobilization bid item exceeds the 5% of the base bid maximum allowed in Section 012000 Measurement and Payment and will need to be reduced with the balance redistributed.

Section IV – Combined Single Construction Contract

The Mobilization bid item exceeds the 5% of the base bid maximum allowed in Section 012000 Measurement and Payment and will need to be reduced with the balance redistributed.



North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission

FROM: Garland Erbele, P.E., Chief Engineer - Secretary

SUBJECT: SWPP – RFP For Transfer of Ownership of SWPP and funding models

DATE: September 17, 2018

Attached is the draft request for proposals (RFP) for selecting firm(s) to study the transfer of ownership of Southwest Pipeline Project (SWPP) from State Water Commission to Southwest Water Authority and to compare the funding models of different major regional water systems in North Dakota.

GE:SSP:pdh/1736-99
Attachment

Request for Proposals – Southwest Pipeline Project Transfer of Ownership

Date??

The North Dakota State Water Commission (NDSWC) is requesting proposals from qualified firms to conduct a Study regarding the Transfer of Ownership of Southwest Pipeline Project (SWPP) from the State Water Commission (SWC) to Southwest Water Authority (SWA).

The purpose of the Study is to determine the advantages and disadvantages of the State divesting ownership of the SWPP.

A full copy of the request for proposals and additional information are available on the NDSWC ftp site (<ftp://swc.water@ftp.swc.nd.gov/>) under the SWPP RFP folder.

Draft Scope of Services – SWPP Transfer of Ownership RFP

The NDSWC seeks an independent review of the transfer of ownership of SWPP to the SWA. The chosen firm(s) will evaluate the advantages and disadvantages of transferring the ownership from the State of North Dakota to the SWA. The firm(s) will provide a report to the NDSWC, which addresses the following:

- 1) **CAPITAL REPAYMENT** – Review the existing capital repayment model for SWPP, and evaluate potentially equitable options for adjustments if ownership were transferred.
- 2) **OWNERSHIP OF LAND AND ASSOCIATED FACILITIES** – Evaluate a potential process for transferring all land interests and associated facilities from NDSWC to SWA, including a quantification of anticipated costs.
- 3) **CONSTRUCTION CONTRACTS** – Evaluate the effect of transfer of ownership on open construction contracts.
- 4) **WATER SUPPLY CONTRACTS** – Evaluate a process, including a quantification of costs, for amending the existing water supply contracts with cities, bulk users, and other entities.
- 5) **EASEMENTS AND PERMITS** – Evaluate a process, including a quantification of costs, for amending the easements and permits (Examples include Main Transmission Line easements, USACE Easements for intake, BNSF Railroad Crossing permits, DOT permits, County road crossing permits, US Forest Service permits) issued to NDSWC for SWPP, and any associated impacts to SWPP.
- 6) **OTHER AGREEMENTS** – Determine the cost and steps required to amend all other agreements (Examples include agreement with Basin Electric for the intake, Western

Area Power Administration and agreements with other rural electric cooperatives) issued to NDSWC for SWPP.

- 7) **EVALUATION OF RESULTS** – Based on the analyses above, evaluate the relative merits or lack thereof of the State divesting ownership of SWPP to SWA.
- 8) **COMPARATIVE ANALYSIS** - Complete a comparative analysis of the funding framework currently used for the SWPP with that currently used by other regional water systems in North Dakota, including Western Area Water Supply (WAWS), Northwest Area Water Supply (NAWS), and the proposed Red River Valley Water Supply Projects (RRVWSP).
- 9) **LEGISLATION CHANGES** – Identify legislative changes required to transfer the ownership of the SWPP.

The NDSWC reserves the right to modify the draft scope of work with the successful firm, but the NDSWC expects that it will generally conform to the above described items.

This RFP is to be used only as a guide for prospective firms in developing a proposal and may not include all tasks necessary to complete the required work. The scope of services may be modified as necessary throughout the project if agreed upon by the NDSWC and the prospective firm(s).

Minimum Qualifications

Interested applicants should possess the following minimum qualifications:

- Minimum of 3 years of experience doing comparable projects.
- Demonstrated experience working with large regional water systems and various financial models used for project development.
- Firms working on SWPP, NAWS, WAWS or RRVWSP will not be considered eligible for this RFP.
- As required by NDCC § 43-19.1-01, project managers responsible for completion of engineering work must have a valid Professional Engineer licensure in the State of ND.
- Interested applicant must assemble a highly qualified professional team with appropriate backgrounds and experience to conduct the required work and produce professional products on time and within budget.
- At the time of contracting, the firm must be able to provide general liability insurance in the amount of one million dollars.

Contract Schedule and Funding

Project work by the selected applicants is anticipated to commence upon notice to proceed issued by the NDSWC once funding is secured. Price will be negotiated with the successful firm. Contract duration may vary between 4 and 6 months. Extensions may be considered based on justification. State contracts must be accepted and signed by the Chief Engineer to the State Water Commission.

Selection Process and Interviews

The selection process will be conducted in accordance with North Dakota Century Code § 54-44.7-03. All complete submittals will be reviewed and evaluated by a designated selection committee. Proposals will be evaluated based on qualifications, experience, project approach and other criteria as described in this RFP.

Based on the selection committee's rating of responding firms, the top-ranked applicants may be required to complete an interview process to clarify their RFP responses. This interview will be held by the NDSWC at a location designated by the NDSWC. Any costs associated with the interview are the responsibility of the applicants.

If a contract cannot be negotiated between the NDSWC and the top ranked applicant, the NDSWC will negotiate with the next qualified applicant.

Submittal

Submittals should emphasize general qualifications for conducting the study described in the RFP.

Applicants must organize their written submittal into a single, bound document (one-volume, 8.5" x 11") and must respond, sequentially, to the items listed below in a manner that is clear and concise for review and evaluation by the selection committee. Divider pages or tabs must be provided to indicate the sections of the proposal that pertain to the individual evaluation criteria.

Cover Letter: Submittals must include a cover letter (limited to two pages) from the prime applicant expressing interest in the project and stating potential conflicts of interest, if any, regarding the SWPP or other major regional water systems in ND.

SF 330: Submittal must contain a completed General Services Administrative Form SF 330, which may be downloaded from the forms library at <http://www.gsa.gov>.

Proposed Deliverables: The submittal must include the proposed work schedule and tasks, including the approximate earliest starting date and estimated completion date.

Project Team: Applicants may assemble teams that include qualified subconsultants, as necessary, for one or more of the required project tasks. Submittals must identify the applicant that will serve as the prime applicant and whom on the team will be responsible for managing project team members, including all subconsultants. Joint ventures will be permitted; however,

the prime consultant will be responsible for all coordination between project team members and subconsultants.

Project Approach: The submittal should include a description of the project approach proposed to address the items listed in the scope of services with a detailed schedule showing the timeline for completing each item.

Project Management: The submittal should include a description of the proposed project management approach, including sub-consultant roles and responsibilities and interaction with the NDSWC. Identify the team expert who will take a lead role. The submittal should contain an indication of the firm's willingness and ability to work flexibly with NDSWC staff, along with the firm's ability to commit appropriate staffing and resources, including tasks by sub-consultants, for successful and timely project completion. A table or chart indicating current and projected workload and manpower availability, including sub-consultants, for contract duration period.

Relevant Experience: In addition to the information contained SF 330, submittals should emphasize general qualifications for performing the study. The submittal will include a description of the specific qualifications and strengths of the firm which includes: financial analysis, contract documents review.

Willingness to sign contract documents: All applicants providing submittals are required to review, understand, and confirm willingness to sign the standard "Contract for Engineering Services" (including the indemnification and insurance clause) document enclosed with this RFP. Submittals will not be evaluated without the signed "Willingness to Sign Standard Contract Documents" form guaranteeing that the standard contract document has been read, understood, and will be signed if offered SWPP transfer study work.

An appendix within the submittal must be included for any additional relevant materials. The number of pages to be included in the submittal will not be limited; however, the submittal may not exceed one single bound volume. **Six** copies of the submittal must be provided for NDSWC review.

Evaluation

The Selection Committee will evaluate submittals based on the minimum qualifications outlined above, the overall quality and completeness of the proposal, and the requisite information included in the proposal.

Right of Rejection

The NDSWC reserves the right to reject any submittal.

Disclosure of Submittal

Upon completion of the selection process, the submittals will be subject to North Dakota's open records laws and may be open to inspection by interested parties. Any information believed to be confidential under N.D.C.C. § 44-04-18.4 (trade secret, proprietary, commercial, or financial information) should be clearly identified in the proposal. If this information is recognized as confidential, it may be exempt from disclosure.

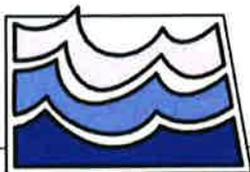
Submittal Due Date and Requirements

Written submittals from qualified consultants will be accepted until 4:00 pm CST on **January 14, 2019** (Note at least 21 days following advertisement). Submit (6) copies of the submittal to:

???

North Dakota State Water Commission
900 East Boulevard Avenue
Bismarck, ND 58505-0850
Telephone: (701) 328-
e-mail: **?**@nd.gov

PLEASE NOTE: It is the responsibility of the firm to hand deliver their submittal by the due date and time or allow sufficient time for the submittal to transit through the US Postal Service or other carrier and the State Mail System. Late submittals will not be evaluated.



North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
 Members of the State Water Commission
FROM: Garland Erbele P.E., Chief Engineer – Secretary
SUBJECT: Devils Lake Update
DATE: September 20, 2018

Hydrologic Update

The September 20th Devils Lake water surface elevation is 1448.5 feet which is approximately 1.5 ft. below the lake level one year ago. The lake experienced very little rise from spring runoff and has declined steadily throughout the summer. 2018 precipitation has been below average, and the Devils Lake Basin is predominantly classified in the D1 (moderate drought) category as of September 20th. The latest National Weather Service forecast was released on August 21st and indicates that there is a 50 percent chance that the lake will drop to 1448.0 ft. by the end of November. As a reminder, in April 2018, the Devils Lake Outlets Management Advisory Committee agreed to evaluate future outlet operations when the lake reaches 1448.0 ft. This discussion will likely take place next spring when the 2019 lake rise forecast is available.

Outlet Update

The West Outlet has discharged steadily at full (250 cfs) capacity with the exception of short maintenance shutdowns since July 21st. The holes added to the standpipe center columns have been successful in the goal of controlling the foam which prevented full capacity discharge in 2016 and 2017.

The East Outlet was shut down for 19 days in August to repair an area of erosion at the outfall structure where water enters Tolna Coulee. The repair was completed and outlet discharge resumed on August 22nd at 165 cfs. The discharge was reduced to 140 cfs on August 29th to prevent potential exceedances.

During the fall operating season, both outlets face challenges with weeds and debris clogging the intakes which requires the outlets to be temporarily shut down to clear the intake screens. Current combined discharge is approximately 390 cfs, and the outlets will continue with this discharge as much as possible through October. Both outlets will be shut down for the year in late October to allow end of season maintenance and inspections to be performed.

The 2018 total combined discharge was 75,067 acre-feet as of August 31, 2018. At the current lake elevation, this equals approximately six inches of water.

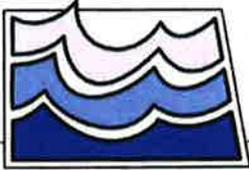
West Outlet Channel Mediation

Mediation has been scheduled for October 17th and 18th in Devils Lake with the landowners who have claimed damages as a result of West End Outlet operation.

GE:JK:TD:ph/416-10

DOUG BURGUM, GOVERNOR
 CHAIRMAN

GARLAND ERBELE, P.E.
 CHIEF ENGINEER-SECRETARY



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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer-Secretary
SUBJECT: Missouri River Update
DATE: September 17, 2018

System/Reservoir Status

Total System

System volume on September 17 in the six mainstem reservoirs was 63.2 million acre-feet (MAF), 7.0 MAF above the base of flood control. This is 7.4 MAF above the average system volume for the end of September and 3.5 MAF more than a year ago.

Lake Sakakawea

On September 17, the elevation of Lake Sakakawea was 1844.6 feet msl, 7.1 feet above the base of flood control. This is 2.8 feet higher than a year ago and 7.5 feet higher than the average end of September elevation. The lowest recorded end of September elevation was 1809.5 feet msl in 2006, and the highest recorded end of September elevation was 1848.2 feet msl in 2010.

Lake Oahe

On September 17, the elevation of Lake Oahe was 1615.2 feet msl, 7.7 feet above the base of flood control. This is 4.6 feet higher than a year ago and 14.0 feet higher than the average end of September elevation. The lowest recorded end of September elevation was 1571.4 feet msl in 2006, and the highest recorded end of September elevation was 1616.5 feet msl in 1997.

Fort Peck

On September 17, the elevation of Fort Peck was 2242.0 feet msl, 8.0 feet above the base of flood control. This is 5.1 feet higher than a year ago and 11.0 feet higher than the average end of September elevation. The lowest recorded end of September elevation was 2199.8 feet msl in 2004, and the highest recorded end of September elevation was 2248.0 feet msl in 1978.

Runoff and Reservoir Forecasts

Releases from Garrison Dam are in the process of being reduced from the 2018 peak of 60,000 cfs and are currently at about 36,000 cfs. Flows are forecasted to be reduced to about 31,000 cfs and remain there for several weeks as the Corps continues to lower the reservoirs in preparation

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E. CHIEF
ENGINEER-SECRETARY

for winter. The September runoff forecast predicts runoff above Sioux City for this year to be 39.8 MAF or 157 percent of average.

Missouri River Recovery Implementation Committee (MRRIC)

Section 5018 of the 2007 Water Resources Development Act (WRDA) authorized the Missouri River Recovery Implementation Committee (MRRIC). The Committee is to make recommendations and provide guidance on activities of the Missouri River Recovery Program (MRRP). MRRIC has nearly 70 members representing local, state, tribal, and federal interests throughout the Missouri River Basin. The representatives for the State of ND on MRRIC are John Paczkowski (primary) and Jesse Kist (alternate).

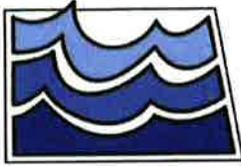
The Corps released the Final Missouri River Recovery Management Plan and Environmental Impact Statement (MRRMP & EIS) on August 31. This process involved the development of a range of alternatives for the purposes of avoiding jeopardy of species on the Missouri River that are protected under the Endangered Species Act, specifically the threatened piping plover and endangered least tern and pallid sturgeon. SWC staff are currently reviewing the Final MRRMP & EIS with the intention of providing comments to the Corps, as necessary, by the October 22nd deadline.

Emergent Sandbar Habitat Construction

As part of the Missouri River Recovery Program, the Corps is currently planning to construct an emergent sandbar habitat (ESH) site within the Garrison Reach of the Missouri River. The intent of this project is to create nesting habitat for the threatened Piping Plover in order to achieve compliance with the Endangered Species Act.

A mechanically constructed ESH project was previously planned for the Garrison Reach during the summer of 2018; however, that project has since been delayed until 2019 at the soonest. The high Missouri River flows during 2018 will necessitate the Corps to reevaluate the quantity, condition, and location of ESH on the Garrison Reach in order to determine the need for additional habitat to be constructed.

GE:JGK:ph /1392



North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer/Secretary
SUBJECT: NDSWC– Mouse River Update
DATE: September 19, 2018

Mouse River Enhanced Flood Protection Project

The Souris River Joint Board (SRJB) sponsored Mouse River Enhanced Flood Protection Project (MREFP) is a basin wide project looking to reduce flood risk in the Mouse River Basin within North Dakota. Construction of phases MI-1, MI-2, and MI-3 are currently underway in the City of Minot, with an expected completion date near the end of 2020. During the construction of the new flood protection project, the current 5,000 cfs protection will be maintained within the city.

As of mid-September, for phase MI-1, contractors were concentrating on the Broadway Pump Station, discharge chamber, cast in place box culverts, and clearing a corridor for the floodwall.

For phases MI-2 and 3, contractors have constructed the earthen levee to its full height from the Dakota Bark Park to the Perkett Ditch Pump Station. Levee fill is being placed for phase MI-3 east of 16th Street and is expected to be constructed to full height by the end of September. Work has begun in the Wee Links junior golf course, where the corridor has been cleared and levee fill is being placed. Work continues on the Perkett Ditch pump station, where the concrete foundation has been poured and the concrete wall pours are nearly complete.

Integrated Feasibility Study

The Integrated Feasibility Study with the Corps is being conducted to determine if the federal government has interest in the MREFP. The feasibility study has been sent to Washington, DC for final approval by the United States Army Corps of Engineers headquarters. This approval is the final step in the process prior to action by the United States Congress. If authorization and appropriation is approved by Congress, up to \$57 million in federal funding could be secured for the project.

Plan of Study

The International Joint Commission's (IJC) Plan of Study will review and update the operating agreements for Rafferty, Grant Devine (formerly known as Alameda), Boundary, and Darling Dams. It is anticipated that the study will be complete in 2020. An appointed Study Board, which oversees the study, has begun work on some of the tasks detailed in their work plan.

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E.
CHIEF ENGINEER AND SECRETARY

September 19, 2018

The study's Public Advisory Group (PAG) released a public input survey to better understand the impacts and benefits the public experiences from changing water levels on the Mouse River. Likewise, the Study Board released a request for information to the members of the Resource and Agency Advisory Group (RAAG) to determine potential benefits or impacts that reservoir operations could have on RAAG member interests. The Study Board is asking for input from these groups by September 30, 2018. The Study Board continues to make progress in working towards setting up the First Nations Advisory Group.

System/Reservoir Status Above Minot

Total System

System volume on September 17 in the four reservoirs above Minot was approximately 536,000 acre-feet, with an available flood storage volume of nearly 510,000 acre-ft. The normal end of February storage (for flood and non-flood years) is approximately 540,000 acre-ft.

Boundary Reservoir (Saskatchewan)

On September 17, Boundary Reservoir was at an elevation of 1835.0 feet msl, 5.0 feet below the full supply level. The maximum allowable flood level, full supply level, and normal draw-down level is 1840.0 feet msl.

Rafferty Reservoir (Saskatchewan)

On September 17, Rafferty Reservoir was at an elevation of 1802.2 feet msl, 3.9 feet below the full supply level. The normal end of February or draw-down elevation (for flood and non-flood years) is 1802.8 feet, and the maximum allowable flood level is 1817.6 feet msl.

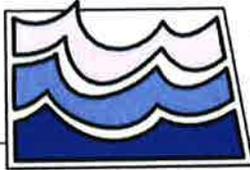
Grant Devine Reservoir (Saskatchewan)

On September 17, Grant Devine Reservoir was at an elevation of 1842.5 feet msl, 1.3 feet below the full supply level. The normal end of February or draw-down elevation (for flood and non-flood years) is 1840.6 feet msl, and the maximum allowable flood level is 1860.2 feet msl.

Darling Reservoir (North Dakota)

On September 17, Darling Reservoir was at an elevation of 1596.1 feet msl, 0.9 feet below the full supply level. The normal end of February or draw-down elevation (for flood and non-flood years) is 1596.0 feet, and the maximum allowable flood level is 1601.0 feet msl.

GE:CK:ph/1974/2122



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 ·
(701) 328-2750 · TTY 1-800-366-6888 or 711

BISMARCK, NORTH DAKOTA 58505-0850
· FAX (701) 328-3696 · <http://swc.nd.gov>

MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer-Secretary
SUBJECT: NAWS – Project Update
DATE: September 21, 2018

Manitoba & Missouri Lawsuit

Summary judgement was granted to North Dakota on August 10, 2017. Both plaintiffs filed appeals in October, and initial filings were due November 27, 2017. The court issued a briefing schedule January 3, 2018 with appellant's briefs due February 12, 2018, appellee's briefs due March 14, 2018, and appellant's reply briefs due March 28, 2018. A joint motion was filed and approved by the court to hold the case in abeyance for 90 days to allow settlement negotiations between appellant Manitoba and the appellees. Another joint motion was filed and approved by the Court to extend the abeyance further to allow further discussions. A joint motion by North Dakota, Department of Interior, and Province of Manitoba moving to dismiss Manitoba's appeal was filed June 22, 2018 and granted by the Circuit Court the following week. The State of Missouri continued their appeal of the Court's decision briefing only on the issue of their standing in the case. The case was fully briefed September 7, 2018. Oral arguments have been scheduled for November 8, 2018 in the District of Columbia Circuit Court of Appeals.

Biota Water Treatment Plant Design

A value planning workshop was held July 30, 2018 through August 2, 2018 for this project. The 30 percent design kickoff workshop is planned for October 3, 2018 through October 5, 2018. A value engineering workshop will be required for the project and is expected in late winter of 2019. The project should be bid ready by late fall of 2019.

NAWS Contract 7-1B – Minot WTP Phase II Improvements

NAWS Contract 7-1B was awarded by the State Water Commission at its February 8, 2018 meeting to PKG Contracting and generally consists of construction of a new primary treatment building at the Minot water treatment facility to replace the aging softening basins, chemical storage and feed systems, a new laboratory, break room, and IT facilities. All contract documents have been executed, and the notice to proceed was signed March 21, 2018. A preconstruction conference was held that same day in Minot. Work on this project is currently underway. The substantial completion date for this contract is December 20, 2019.

NAWS Contract 2-2A-2 – 19th Ave Vault Relocation

NAWS Contract 2-2A-2 was awarded to PKG Contracting, Inc. in the amount of \$515,695. Work is underway on this contract with a substantial completion date of October 31, 2018.

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E.
CHIEF ENGINEER-SECRETARY

NAWS Contract 2-4A – Renville Corner to Westhope

A 90 percent design review is scheduled for October 1, 2018 for NAWS Contract 2-4A in Minot. This contract will involve roughly 16 miles of pipe and related appurtenances to extend the potable distribution system from the corner of US Highway 83 and State Highway 5 to south of Westhope. This contract should be ready to bid this fall with a substantial completion date in 2019 and final completion in early 2020.

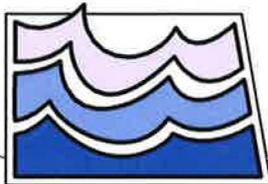
NAWS Contract 2-3C – Lansford to Renville Corner

The design of NAWS Contract 2-3C is roughly 30 percent complete. This contract will involve roughly 16 miles of pipe and related appurtenances to extend the potable distribution system north of Minot near Lansford to tie into the existing pipeline along highway 5. This will complete the ‘looped’ nature of the distribution pipeline greatly expanding our hydraulic capacity and flexibility to serve our customers as well as adding redundancy to the system. This contract should be ready to bid this winter with a substantial completion date in 2019 and final completion in early 2020.

NAWS Contract 6-1A – Intake Modifications to Snake Creek Pumping Plant

The design kickoff meeting for Contract 6-1A will be held October 3-5 in Denver. Anticipated design costs are roughly \$2 million with a timeframe of approximately one year. This facility will have to come on line coincident with the completion and commissioning of the Biota Water Treatment Plant.

GE:TJF:pdh/237-04



North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
State Water Commission Members

FROM: Garland Erbele, P.E., Chief Engineer-Secretary

DATE: October 1, 2018

SUBJECT: Century Code Changes and Bill Drafts

Water Commission staff have identified two sections of North Dakota Century Code that either require amendments or repeal during the upcoming 2019 Legislative Assembly.

NDCC 61-34-04 Amendments

This section of North Dakota Century Code is related to Drought Disaster Livestock Water Assistance Program eligibility. The proposed amendments are to: strike language that allows for eligibility of projects without prior approval by the agency; and the second is to remove reference to the \$3,500 per project cap that was increased to \$4,500 in Administrative Code earlier this year.

NDCC 61-02-78 Repeal

The sixty-third Legislative Assembly created an Infrastructure Revolving Loan Fund (IRLF) in Senate Bill 2233. Effective January 1, 2015, this new fund, existing within the Resources Trust Fund, is allocated 10% of the oil extraction deposits for the purpose of providing loans, through the Water Commission, to local project sponsors for water projects. The interest rate was set in statute at 1.5%, and the Bank of North Dakota (BND) was directed to manage and administer the loans - with one-half of one percent for their services. The 2017 Legislative Assembly capped the amount of funding going into the IRLF at \$26 million.

Repeal of the IRLF is being suggested because BND already has an existing Infrastructure Loan Fund that could provide loan funding for water projects. The SWC's IRLF is currently competing with the BND program, and the SWC's loans through this fund are administered through BND. This duplication of loan programs inefficiently utilizes state resources, while providing very limited benefit to local project sponsors.

Therefore, I recommend that the State Water Commission direct staff to pursue the proposed amendments to NDCC 61-34-04 and repeal of NDCC 61-02-78.

GE:pf/dl/1851 & 2077

Introduced by

A BILL for an Act to amend and reenact section 61-34-04 of the North Dakota Century Code, relating to the drought disaster livestock water assistance program.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Section 61-34-04 of the North Dakota Century Code is amended and reenacted as follows:

61-34-04. Eligibility – Application for assistance.

Applicants with livestock water supply problems caused by drought may apply for assistance from the program. An applicant must first apply for water cost-share assistance from the United States department of agriculture farm service agency. If cost-share assistance is denied by the agency, the applicant may forward the application to the commission for consideration. An application forwarded to the commission must include a document from the United States department of agriculture farm service agency stating the reason for denial of cost-share assistance. The state engineer shall review all applications received by the commission. Notwithstanding any other provision of law, a water supply project commenced after application for funding is made but without prior approval of the state engineer is eligible for funding consideration from the program. ~~If the state engineer approves an application, the applicant may receive up to fifty percent of the cost but in no event more than three thousand five hundred dollars per project with a limit of three projects per applicant.~~ The state engineer shall provide funds for approved applications in accordance with rules and criteria for eligibility and only to the extent that funding is available. A drought livestock water assistance program project located on Indian land is eligible for the program.

Sixty-sixth
Legislative Assembly
of North Dakota

_____ **BILL NO.**

Introduced by

A BILL for an Act to repeal section 61-02-78 of the North Dakota Century Code, relating to the infrastructure revolving loan fund.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. REPEAL. Section 61-02-78 of the North Dakota Century Code is repealed.

Improved Low Head Dam

Hillsboro, ND

October 8, 2018



Volunteers rush to aid in Goose River tragedy

Searchers recover bodies

Scott M. Julin

Following days of backbreaking labor and highly charged emotions, searchers pulled the bodies of two drowning victims from the Goose River Tuesday afternoon, and a third body was found late Thursday morning. Shortly before 2:30 p.m. Wednesday, a diver walking in the river and along the bank with a "pike pole", a long metal pole with an attached hook, discovered the body of Trevor Thompson lodged under the changing north bank of the river less than a quarter-mile from Foogman. The area had been the target of intensive search efforts over the previous three days, but the body lay undiscovered until Wednesday. Thompson, 21, was a Minnetonka resident enrolled at Northwest Technical College, Detroit Lakes, MN, in the biomedical technology program. He is scheduled to graduate from the two-year program this spring.

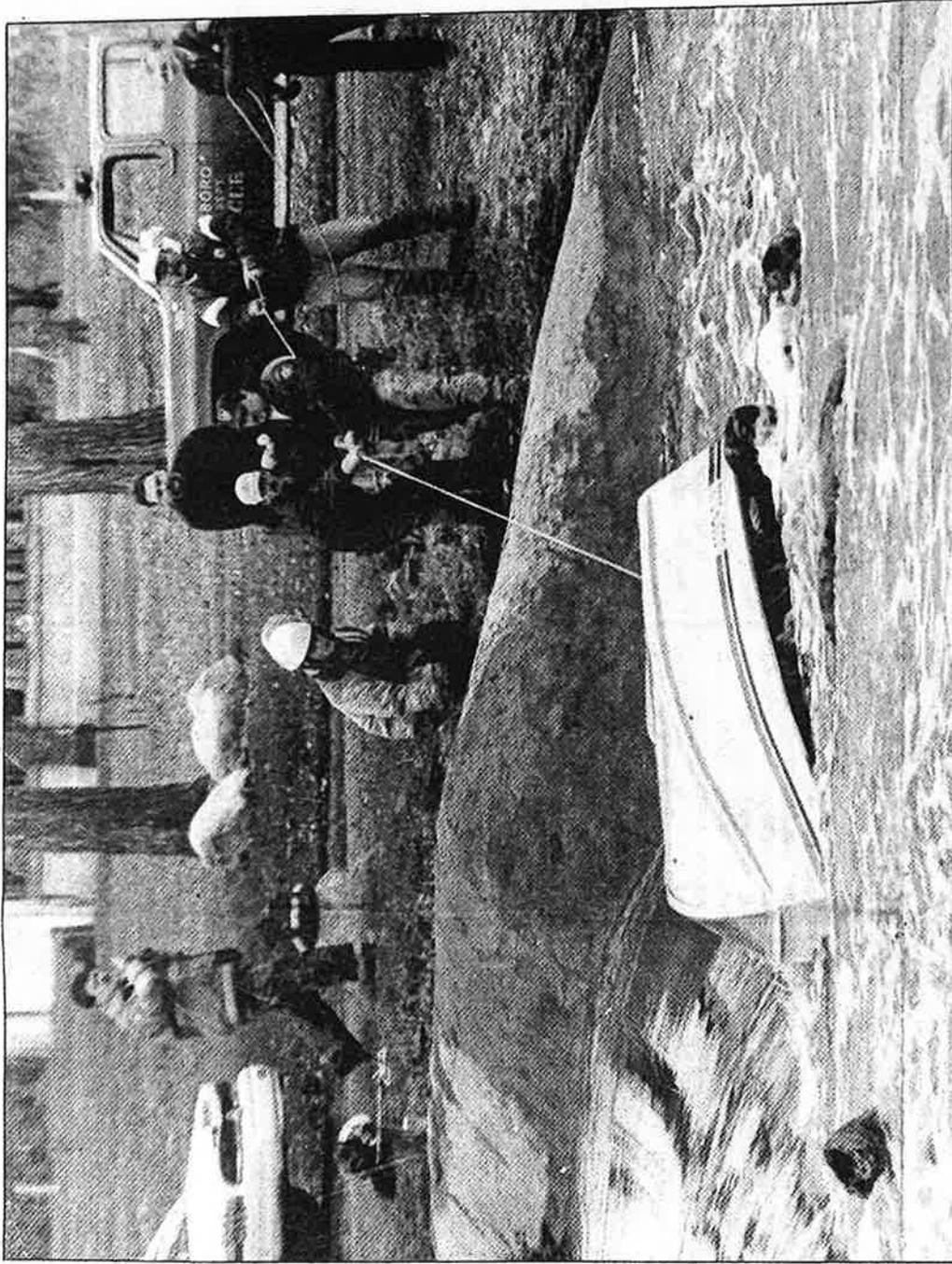
Later Wednesday afternoon, searchers pulled the body of Craig Cameron, 29, from the Goose River about 2,000 feet downstream from the

Cameron, a Staples, MN, native currently enrolled as a graduate student at the University of North Dakota at Grand Forks, is survived by a wife, Rhonda. She teaches kindergarten at Twining Elementary School at Grand Forks Air Force Base.

The bodies will be taken to Bismarek for autopsy, said Hillsboro Police Chief Ray Weber.

The search for Dr. Buckley Zahradka resumed early Thursday morning, but ended when searchers discovered his body about 200 feet east of where Cameron's body was found the previous day. Searchers were called in and met one final time to put an end to their ordeal.

Weber said he would like to thank everyone who helped and offered assistance during the search.



Rescue workers attempt to pull the 14-foot boat to the shore against the powerful currents of the Goose River in Hillsboro. Less than an hour earlier, three men were swept over the dam. Their boat overturned, throwing the men into the freezing water. The churning water made it impossible for the rescue squad to hold on to the rope. Photo by Bob Ludwig



March 23, 1998

Authorities mount heavy search for trio of boaters

by Scott M. Julin

A Sunday outing on the usually placid Goose River took a tragic turn when a boat containing three men capsized, sending all three to what is now known to be a watery death.

The men—Buckley Zahradka, 30, Fargo; Craig Cameron, 21, Grand Forks; and Trevor Thompson, 21, Detroit Lakes, MN—launched a 14-foot fishing boat north of Foggman Dam near Highway 81 on the north edge of Hillsboro Sunday morning. The trio planned to depart from Woodland Park and boat north on the Goose, hunting beaver along the banks on the way to a meeting with a companion at an unspecified location.

The bodies of two of the men, Cameron and Thompson, were recovered Wednesday afternoon, and Zahradka's body was found later Thursday morning.

Owing to high water from spring run-off and other factors, Sunday's planned excursion went horribly awry—the boat's motor malfunctioned and the craft was swept into the dam and capsized, sending its three passengers into the frigid waters at about 9:20 a.m. Two other members of the party, Dr. Jeffrey Eickman and Dr. Marc Neilsen, both Grand Forks residents, were standing on the shore. One of the men on shore tossed a rope to one of the boaters and attempted to pull the boat to shore. Efforts to hold the boat against the pull of the current proved futile, however, and the craft capsized after striking the dam. All three men were pulled under by the roiling water at the foot of the concrete structure.

Officials estimated the water depth on the downstream side of the dam at about 10', a normal level during spring runoff. Upstream, the water measures at just over three feet deep. Traill County Sheriff's Deputy Mike Crocker said that life jackets, required in watercraft on North Dakota waters, were tied to the boat's seats.

See Search page 3



Volunteers lined the banks on both sides of Foggman Dam to pull a grappling hook through the roiling waters beneath the dam. Authorities put all of the more than 100 who showed up at Woodland Park in the days after the Sunday mishap to work in various capacities. Local churches, citizens, businesses, city employees, and law enforcement officials all pitched in to search for a trio of victims lost to high waters along the Goose River. Photo by Scott M. Julin.



A man walked the shallow waters near the shore of the Goose River searching for victims of Sunday's boating mishap. The first of two bodies discovered Wednesday was found near this spot. Photo by Scott M. Julin.

Hillsboro man charged after one-car rollover

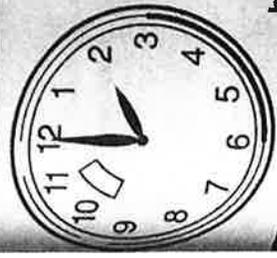
Scott M. Julin
A one-vehicle accident one-quarter mile east of Hillsboro on Trail (County Road 11) resulted in a charge of driving under the influence for 22-year-old Dustin R. Hammond.

Hammond, a Hillsboro resident, was taken to Hillsboro Medical Center following the 2 a.m. Tuesday incident. He was later released and charged with driving under the influence. Hillsboro Sheriff's Department deputy Tony Hammond rolled his vehicle, Ernst said, and officers responding to the scene administered a field sobriety test, which Hammond allegedly

failed. The Hillsboro Police Department and the Hillsboro Fire Department and Rescue Squad also responded to the scene.

Daylight Savings Begins April 5!

Set your clocks ahead one hour before going to bed!



SEARCH

continued from page 1

He said he did not believe any of the boat's passengers were wearing vests or other safety equipment when the boat capsized.

Rescue crews and passersby attempted to pull the boaters from the rising stream, but those efforts, too, proved futile.

One of the first at the scene was Hillsboro firefighter and Rescue Squad leader Jamie Reed. As he and others prepared rescue equipment, he saw the body of one of the boaters surfaced downstream from the dam.

"He came up right over there," Reed said Monday, pointing to a spot 30 yards downstream from the dam. "He was on the surface for just a half bit, then he disappeared again before we could get a rope or anything out to him."

Rescue Squad workers, law enforcement officers, and volunteers have worked nearly every hour of available daylight dragging the river bottom, along the shoreline, and probing the depths of the river with poles in an attempt to locate the bodies of the men.

An unidentified man, one of the first to arrive after the boat struck the dam, said one of the crew managed to stay with the overturned craft, but he lost his battle with the current's pull and the bone-chilling water, and he pulled beneath the surface.

Reed, Hillsboro Police Chief Ray Weber, and Crocker led search efforts and coordinated activities.

Efforts would continue, said Weber, until the last body was found, or until family members and volunteers agree that continued efforts are futile.

Local volunteers received some much needed and greatly appreciated Wednesday when more than 60 volunteers, a large majority of them students, met with searchers prior to the resumption of efforts. A search party with more volunteers entered the park midmorning Wednesday.

"They are very welcome," said Reed at the time. "The people who have been down here throughout the search are just plain wore out. Everyone is very tired, and it was good to see some fresh bodies to take over for our local volunteers."

Reed said that workers had begun to voice concerns that weariness could lead to mistakes as early as Tuesday afternoon.

"It's a lot better today (Wednesday) with all of the fresh volunteers. People who have been doing all the heavy work over the last few days are now supervising," Reed said. "It's very hard work, but we know what we need to do and we will keep doing it until we are satisfied we have done very best."

Volunteers came from as far as Michigan, ND, Minot, and Staples, to help in the recovery efforts.

Weber said all volunteers would be put to work, and added that all help would be gratefully appreciated.

"We sure won't turn anyone away," Weber said.

Volunteer effort has led the way throughout the search. Initially, volunteers turned out with boats to run the river in hope of finding bodies. Later, volunteers took to boats, dragging grappling hooks along the bottom of the river and through the debris left behind by the rising water, a physically demanding task.

The incident sparked comparisons to the July 20, 1995, drowning of a man at Fooman Dam.

Wadsworth died when he attempted to rescue a dog that was trapped in the river, swollen from summer rains. His body was recovered well downstream, along with his dog, three days after they entered the river.

Police said then that they would recommend signs be erected to keep people away from the dam during times of danger. No such action was



Hillsboro Police Chief Ray Weber, Rescue Squad leader Jamie Reed, and volunteer Mark Forseth, above, survey rescue efforts on the Goose River Wednesday. At right, family and friends of boaters who drowned Sunday gathered near Fooman Dam. Photos by Scott M. Jullin.

Jim Wadsworth, at Foogman Dam. Wadsworth died when he attempted to rescue a dog that was trapped in the river, swollen from summer rains. His body was recovered well downstream along with his dog, three days after they entered the river. Police said then that they would recommend signs be erected to keep people away from the dam during times of danger. No such action was

Family, friends, authorities thankful for volunteers in recovery efforts

Scott M. Julin
A large force of volunteers stood tall in the face of adversity and grief following the tragic loss of three lives to the Goose River. Family members and friends of the victims appreciated the care and attention shown and the energy expended by the volunteers, said St. John's Lutheran Church Pastor Brad Viken. He and Pastor Doug Stave of St. John's Lutheran Church were nearly constantly at the scene of the tragedy, Hillsboro's Woodland City Park, during efforts directed at recovering the bodies lost to the river. Pastor Viken said the compassion demonstrated by volunteers helped family members and friends cope with their time of greatest need.

"We heard a lot of good words about the good people of Hillsboro and how good deeds they are doing to see this tragedy resolved," said Pastor Viken. "The families are very thankful about the level of volunteerism and how they said that the people of Hillsboro should be commended for their help."

"The magnitude of the tragedy made it one of the most difficult I have faced in his ministry. But, like the families of the victims, we have taken heart in the great outpouring of sympathy and caring extended by the volunteers."

"This is one of the hardest things I have ever encountered," he said. "The degree of the tragedy, and the way it affects the families and friends, and their different ranges of emotions and backgrounds for handling and dealing with it—each person is handling it in a different way, and we have expressed their gratitude to the volunteers and how everyone is doing everything on hold to help bring this to a conclusion."

"The hurt and pain the families are feeling is a tremendous burden, but we are handling it in his own way," the pastor added.

"Some of the volunteers who walked the river, searching for survivors; to some of Hillsboro churches who set up schedules for feeding survivors; to divers, and to students who showed up on the third day of efforts—all deserve the most heartfelt expressions of gratitude, said Pastor Viken, and all will be in the prayers of those who lost family or friends in the river.

"The best thing we can do now is to pray for the families and for the recovery. There is never any clue as to why something like this happens, but we know God will carry everyone through it if they let Him," said Pastor Viken. "All we in the clergy can do now is to show our presence in prayer and a shoulder to lean on."

"An informal service was scheduled for Thursday night at St. John's Lutheran Church. While meeting with and in talking to the volunteers at the service, Pastor Viken urged all to attend and meet the family members, who expressed their wishes to thank everyone personally for their help.

"The hurt and pain were eased by the caring and consideration of the people of Hillsboro. They want to thank everyone and to meet everyone and to help bring this to a resolution," he added.

Hillsboro Police Chief Ray Weber, Rescue Squad leader Jamie Reed, and volunteer Mark Forseth, above, survey rescue efforts on the Goose River Wednesday. At right, family and friends of boaters who drowned Sunday gathered near Foogman Dam. Photos by Scott M. Julin.

Public Health success will be celebrated

Trail District Health Unit will take part in an April 6-12, 1998 Public Health Week campaign designed to recognize accomplishments made through public health activities at the national, state, and local levels.

The theme of the celebration is "Healthy People in Healthy Communities."

Residents of North Dakota often set the pace when it comes to this theme, according to Brenda Stallman, Director of Trail District Health Unit.

"We have a lot to be proud of in our state," said Stallman. "In 1997, the Children's Rights Council ranked North Dakota as the best state to raise children, and the Anne E. Casey Foundation ranked the health of our children as the third best in the nation."

"But we still have a long way to go before we meet all of our public health goals," she said. Heart disease, diabetes, and cancer are serious health concerns locally in Trail County as well as in the state of North Dakota and nationwide.

Public Health Week activities in Trail County will include free blood pressure screenings at area banks on designated dates and throughout the week in the Health District office. The public is encouraged to visit the public health office, which is located in the basement of the Trail County Courthouse in Hillsboro, and take advantage of the many services provided. Hearing screening, blood sugar, hemoglobin, and cholesterol blood tests are available on an appointment basis. Immunizations for children and adults are given routinely on the first and third Thursdays every month at Union Hospital and the Courthouse, and by appointment in the Health District Office. Many brochures on various health topics are available free of charge. During the week of April 6-12, free radon kits will be available in the nurse's office. Anyone returning their results of a radon test will be entered into a drawing for a carbon monoxide detector. Anyone with questions is encouraged to call Trail District Health Unit, toll free in Trail County, 1-888-468-6403, or 436-4434 locally.

The odds are stacked against you when racing with a train

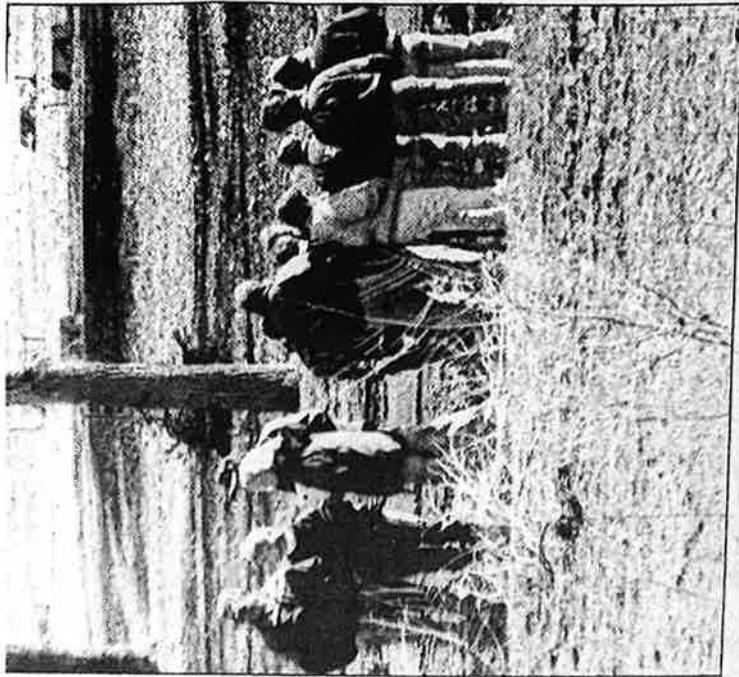
North Dakota Operation Lifesaver urges motorists to adhere to the following safety tips which can literally be lifesavers.

- Never drive around lowered gates--it's illegal and deadly.
- Never race a train to a crossing--even if you tie, you lose.
- Don't get trapped on a crossing in traffic.

Get out of your car immediately if it stalls on a crossing and call local law enforcement for assistance.

- Watch for a second train when crossing multiple tracks.
- As a pedestrian, never walk, run or cycle on railroad tracks--it's trespassing and illegal.

Motorists are reminded by Operation Lifesaver to obey crossing signals and warnings. It is simply not worth the gamble to "race the train." The odds are definitely stacked against the motorist. Remember the age-old safety advice: Look, Listen...and Live!



Remaking history Hatton museum honors memory of local hero

by Scott M. Julin
The Hatton Public School gymnasium was the site of celebration Wednesday, April 1.

A commemoration of Carl Ben Eielson's 1928 "Top of the World" expedition got underway at 9:30 a.m. that day. A pair of modern-day adventurers stopped in on their trek northward to follow the route of Hatton native Carl Ben Eielson across the top of the world.

Eielson and George Hubert Wilkins, in April of 1928, flew a 1927 Lockheed Vega aircraft 2,200 miles from Barrow, Alaska, to Spitsbergen, Norway, a feat never attempted before that time. Pilot Bill Signs and Tom Smith, a self-described adventurer, will duplicate the flight in April 1998. Smith, 74, is a North Dakota native.

Signs commemorated Charles Lindbergh's historic flight across the Atlantic Ocean with Friendship Flight 97 and set a world record when he landed a single-engine craft on every continent, a trip of 39,543 miles. With Friendship Flight 98, the pair will attempt to replicate Eielson's route by crossing over the North Pole in a single engine Cessna 210 Centurion.

Smith's father was a friend of Eielson's, and the youngster saw the pilot as a hero worthy of emulation. He said the flight has been a lifelong goal and will honor the memory of those long-ago explorers.

The pair departed Dallas, TX, March 31 and stopped at Hatton April 1 on their way to an April 15 departure from Alaska. The send-off rally was followed by another public session and luncheon at the Farmer's Den before they departed for the trans-polar flight.

Low Head Dams

State of North Dakota

Most Low Head Dams in North Dakota were constructed by CCC in the 1930's

These dams are a safety concern to communities as well as a financial draw to the State of North Dakota when repairs are needed.

Planning for the Future:

- 1.) **Compile and Update list of Low Head Dams in North Dakota**
- 2.) **Inventory by County and Prioritize**
- 3.) **Create Time Frame for improvements and repairs**

Seek funding

- Local
- State
- Federal

Add these Dams to the State Water Plan for the future.